

WEST Search History

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DATE: Monday, January 12, 2004

<u>Hide?</u>	<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>
		<i>DB=PGPB,USPT,EPAB,JPAB,DWPI; PLUR=YES; OP=OR</i>	
<input type="checkbox"/>	L7	L6 not (l4 or l5)	3
<input type="checkbox"/>	L6	l3 and l2	3
<input type="checkbox"/>	L5	zaremba-sam\$.in.	2
<input type="checkbox"/>	L4	barzaga-elene\$.in.	1
<input type="checkbox"/>	L3	schlom-jeffrey\$.in.	32
<input type="checkbox"/>	L2	(cea or (carcinoembroyic adj antigen))adj5 vaccine\$	29
<input type="checkbox"/>	L1	cea and vaccine\$	1139

END OF SEARCH HISTORY

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GenCore Version 5.1.6
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OM protein - protein search, using sw model

Run on: January 12, 2004, 14:25:20 ; Search time 10.25 Seconds
(without alignments)
84.441 Million cell updates/sec

Title: US-09-529-121A-2
Perfect score: 45
Sequence: 1 YLSGADLNL 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283308 seqs, 96168682 residues

Total number of hits satisfying chosen parameters: 789

Minimum DB seq length: 0
Maximum DB seq length: 9

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_76:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	16	35.6	7	2	PT0542	T-cell receptor be
2	16	35.6	7	2	PC2370	probable H+-transp
3	16	35.6	8	2	JS0318	leucokinin VIII -
4	16	35.6	9	1	AKLQIM	locustamyoinhibiti
5	16	35.6	9	2	A57444	neuropeptide Grb-A
6	16	35.6	9	2	B57444	neuropeptide Grb-A
7	16	35.6	9	4	I57650	hemoglobin alpha c
8	15	33.3	5	2	PT0540	T-cell receptor be
9	15	33.3	6	2	PT0726	T-cell receptor be
10	15	33.3	7	2	PT0526	T-cell receptor be
11	15	33.3	7	2	PT0676	T-cell receptor be
12	15	33.3	8	2	TI3818	cytochrome oxidase
13	15	33.3	9	2	F41978	callifMRamide 6 -
14	15	33.3	9	2	PT0388	Ig heavy chain CRD
15	15	33.3	9	2	G41946	T-cell receptor ga
16	14	31.1	4	2	A26209	protein-glutamine
17	14	31.1	5	2	PT0679	T-cell receptor be
18	14	31.1	6	2	PT0605	T-cell receptor be
19	14	31.1	6	2	PT0593	T-cell receptor be
20	14	31.1	7	2	S20446	elastase - Pseudom
21	14	31.1	7	2	PT0654	T-cell receptor be
22	14	31.1	7	2	PT0722	T-cell receptor be
23	14	31.1	8	2	A21440	variant surface gl
24	14	31.1	8	2	A41117	acetylcholinestera
25	14	31.1	8	2	PN0043	phosphatidylethano
26	14	31.1	8	2	PT0557	T-cell receptor be
27	14	31.1	9	2	A61364	isotocin - common
28	14	31.1	9	2	C57444	neuropeptide Grb-A
29	13	28.9	4	2	S43959	Ig mu chain V regi

30	13	28.9	7	2	I50210	gene c-rel protein
31	13	28.9	8	2	PT0547	T-cell receptor be
32	13	28.9	9	2	A44873	caldesmon - rabbit
33	13	28.9	9	2	QDRB	delta sleep-induci
34	13	28.9	9	2	C41170	photosystem II pro
35	13	28.9	9	2	PH0935	T-cell receptor be
36	13	28.9	9	2	PH0918	T-cell receptor be
37	12	26.7	6	2	I51434	H4 histone - Afric
38	12	26.7	7	2	S16364	opacity protein P.
39	12	26.7	7	2	B35890	RNA-directed DNA p
40	12	26.7	7	2	PN0649	pullulanase (EC 3.
41	12	26.7	7	2	S29735	polyposphatase (EC
42	12	26.7	8	2	PQ0012	cholecystokinin -
43	12	26.7	8	2	A43001	cholecystokinin -
44	12	26.7	8	2	PL0184	capsid protein VP-
45	12	26.7	8	2	S65647	2-hydroxyglutaryl-

ALIGNMENTS

RESULT 1
PT0542
T-cell receptor beta chain V-D-J region (126-1BA) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C;Accession: PT0542
R;Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A;Reference number: PT0509; MUID:91277601; PMID:1711558
A;Accession: PT0542
A;Status: translation not shown
A;Molecule type: mRNA
A;Residues: 1-7 <FEE>
A;Experimental source: day 18 fetal thymus, strain BALB/c
C;Keywords: T-cell receptor

Query Match 35.6%; Score 16; DB 2; Length 7;
Best Local Similarity 75.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

OY 3 SGAD 6
Db 2 SGAD 5

RESULT 2
PC2370
probable H+-transporting two-sector ATPase (EC 3.6.3.14) alpha chain [similarity] - Bacil
N;Alternate names: unidentified 78K protein
C;Species: Bacillus cereus
C;Date: 20-Apr-2000 #sequence_revision 20-Apr-2000 #text_change 03-Jun-2002
C;Accession: PC2370
R;Matsuno, K.; Miyamoto, T.; Yamaguchi, K.; Sayed, M.A.; Kajiwara, T.; Hatano, S.
Biosci. Biotechnol. Biochem. 59, 231-235, 1995
A;Title: Identification of DNA-binding proteins changed after induction of sporulation in
A;Reference number: PC2369; MUID:95218265; PMID:7766022
A;Accession: PC2370
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-7 <MAS>
C;Keywords: ATP biosynthesis; hydrolase

Query Match 35.6%; Score 16; DB 2; Length 7;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 6 DLN 8
Db 2 DLN 4

RESULT 3

JS0318
leucokinin VIII - Madeira cockroach
C/Species: Leucophaea maderae (Madeira cockroach)
C/Date: 07-Sep-1990 #sequence_revision 07-Sep-1990 #text_change 20-Jun-2000
C/Accession: JS0318
R/Holman, G.M.; Cook, B.J.; Nachman, R.J.
Comp. Biochem. Physiol. C 88, 31-34, 1987
A/Title: Isolation, primary structure and synthesis of leucokinin VII and VIII: the first
A/Reference number: JS0317
A/Accession: JS0318
A/Molecule type: protein
A/Residues: 1-8 <HOL>
C/Comment: Leucokinin, a family of cephalomyotropic peptides, stimulate contractile act
C/Keywords: amidated carboxyl end; cephalomyotropic peptide
F,8/Modified site: amidated carboxyl end (Gly) #status experimental

Query Match 35.6%; Score 16; DB 2; Length 8;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 4 GAD 6
Db 1 GAD 3

RESULT 4

AKQIM

locustamyoinhibiting peptide - migratory locust
C/Species: Locusta migratoria (migratory locust)
C/Date: 31-Mar-1993 #sequence_revision 31-Mar-1993 #text_change 20-Mar-1998
C/Accession: A60065
R/Schoofs, L.; Holman, G.M.; Hayes, T.K.; Nachman, R.J.; De Loof, A.
Regul. Pept. 36, 111-119, 1991
A/Title: Isolation, identification and synthesis of locustamyoinhibiting peptide (LOM-MI
A/Reference number: A60065; MUID:92179466; PMID:1796179
A/Accession: A60065
A/Molecule type: protein
A/Residues: 1-9 <SCH>
C/Comment: This peptide hormone suppresses spontaneous contractions of the hindgut and c
C/Superfamily: locustamyoinhibiting peptide
C/Keywords: amidated carboxyl end; hormone
F,9/Modified site: amidated carboxyl end (Trp) #status experimental

Query Match 35.6%; Score 16; DB 1; Length 9;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 6 DLN 8
Db 4 DLN 6

RESULT 5

A57444
neuropeptide Grb-AST B1 - two-spotted cricket
C/Species: Gryllus bimaculatus (two-spotted cricket)
C/Date: 26-Jan-1996 #sequence_revision 26-Jan-1996 #text_change 26-Jan-1996
C/Accession: A57444
R/Lorenz, M.W.; Kellner, R.; Hoffmann, K.H.
J. Biol. Chem. 270, 21103-21108, 1995
A/Title: A family of neuropeptides that inhibit juvenile hormone biosynthesis in the cri
A/Reference number: A57444; MUID:95403341; PMID:7673141
A/Accession: A57444
A/Status: preliminary
A/Molecule type: protein
A/Residues: 1-9 <LOR>

Query Match 35.6%; Score 16; DB 2; Length 9;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 6 DLN 8

Db 4 DLN 6

RESULT 6

B57444
neuropeptide Grb-AST B2 - two-spotted cricket
C/Species: Gryllus bimaculatus (two-spotted cricket)
C/Date: 26-Jan-1996 #sequence_revision 26-Jan-1996 #text_change 26-Jan-1996
C/Accession: B57444
R/Lorenz, M.W.; Kellner, R.; Hoffmann, K.H.
J. Biol. Chem. 270, 21103-21108, 1995
A/Title: A family of neuropeptides that inhibit juvenile hormone biosynthesis in the cri
A/Reference number: A57444; MUID:95403341; PMID:7673141
A/Accession: B57444
A/Status: preliminary
A/Molecule type: protein
A/Residues: 1-9 <LOR>

Query Match 35.6%; Score 16; DB 2; Length 9;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 6 DLN 8
Db 4 DLN 6

RESULT 7

I57650
hemoglobin alpha chain - human (fragment)
C/Species: Homo sapiens (man)
C/Date: 02-Jul-1996 #sequence_revision 31-Jul-1997 #text_change 20-Apr-2000
C/Accession: I57650
R/Whitelaw, E.; Hogben, P.; Hanscombe, O.; Proudfoot, N.J.
Mol. Cell. Biol. 9, 241-251, 1989
A/Title: Transcriptional promiscuity of the human alpha-globin gene.
A/Reference number: I57650; MUID:89181576; PMID:2538719
A/Accession: I57650
A/Status: translated from GB/EMBL/DBJ
A/Molecule type: DNA
A/Residues: 1-9 <WHI>
A/Cross-references: GB:M23454; NID:g340922; PIDN:AA52629.1; PID:g553329
A/Note: engineered sequence; this sequence was not determined in this report
C/Genetics:
A/Gene: GDB:HBA1
A/Cross-references: GDB:119293
A/Map position: 16p13.3-16p13.3

Query Match 35.6%; Score 16; DB 4; Length 9;
Best Local Similarity 80.0%; Pred. No. 2.8e+05;
Matches 4; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

OY 2 LSGAD 6
Db 3 LSPAD 7

RESULT 8

PT0540
T-cell receptor beta chain V-D-J region (126-1L) - mouse (fragment)
C/Species: Mus musculus (house mouse)
C/Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C/Accession: PT0540
R/Peeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A/Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A/Reference number: PT0509; MUID:91277601; PMID:1711558
A/Accession: PT0540
A/Status: translation not shown
A/Molecule type: mRNA
A/Residues: 1-5 <FEE>
A/Experimental source: day 18 fetal thymus, strain BALB/c

C;Keywords: T-cell receptor

Query Match 33.3%; Score 15; DB 2; Length 5;
Best Local Similarity 75.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

OY 3 SGAD 6
|||
Db 2 SGED 5

RESULT 9

PT0726

T-cell receptor beta chain V-D-J region (161-2D) - mouse (fragment)

C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C;Accession: PT0726

R;Feeney, A.J.

J. Exp. Med. 174, 115-124, 1991

A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A;Reference number: PT0509; MUID:91277601; PMID:1711558

A;Accession: PT0726

A;Status: translation not shown

A;Molecule type: DNA

A;Residues: 1-6 <FEE>

A;Experimental source: newborn thymus, strain BALB/c

C;Keywords: T-cell receptor

Query Match 33.3%; Score 15; DB 2; Length 6;
Best Local Similarity 75.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

OY 3 SGAD 6
|||
Db 2 SGED 5

RESULT 10

PT0526

T-cell receptor beta chain V-D-J region (100-4E) - mouse (fragment)

C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C;Accession: PT0526

R;Feeney, A.J.

J. Exp. Med. 174, 115-124, 1991

A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A;Reference number: PT0509; MUID:91277601; PMID:1711558

A;Accession: PT0526

A;Status: translation not shown

A;Molecule type: mRNA

A;Residues: 1-7 <FEE>

A;Experimental source: adult thymus, strain BALB/c

C;Keywords: T-cell receptor

Query Match 33.3%; Score 15; DB 2; Length 7;
Best Local Similarity 75.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

OY 3 SGAD 6
|||
Db 2 SGED 5

RESULT 11

PT0676

T-cell receptor beta chain V-D-J region (140-1AL) - mouse (fragment)

C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C;Accession: PT0676

R;Feeney, A.J.

J. Exp. Med. 174, 115-124, 1991

A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A;Reference number: PT0509; MUID:91277601; PMID:1711558

A;Accession: PT0676
A;Status: translation not shown
A;Molecule type: DNA
A;Residues: 1-7 <FEE>

A;Experimental source: day 18 fetal thymus, strain BALB/c
C;Keywords: T-cell receptor

Query Match 33.3%; Score 15; DB 2; Length 7;
Best Local Similarity 75.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

OY 3 SGAD 6
|||
Db 2 SGED 5

RESULT 12

T13818

cytochrome oxidase subunit I - Atlantic hagfish mitochondrion (fragment)

C;Species: mitochondrion Myxine glutinosa (Atlantic hagfish)

C;Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text_change 21-Jul-2000
C;Accession: T13818

R;Delarbre, C.; Barriol, V.; Tillier, S.; Janvier, P.; Gachelin, G.
Mol. Biol. Evol. 14, 807-813, 1997

A;Title: The main features of the craniate mitochondrial DNA between the ND1 and the COI
A;Reference number: Z17775; MUID:97398704; PMID:9254918

A;Accession: T13818

A;Status: preliminary; translated from GB/EMBL/DBJ

A;Molecule type: DNA

A;Residues: 1-8 <DELT>

A;Cross-references: EMBL:X09527; NID:g2340019; PIDN:CAA70718.1; PID:g2340022

C;Genetics:

A;Genome: mitochondrion

A;Note: COI

C;Keywords: mitochondrion

Query Match 33.3%; Score 15; DB 2; Length 8;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 YLS 3
|||
Db 2 YLS 4

RESULT 13

F41978

calliFMRamide 6 - bluebottle fly (Calliphora vomitoria)

C;Species: Calliphora vomitoria
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 17-Mar-1999
C;Accession: F41978

R;Duve, H.; Johnsen, A.H.; Sewell, J.C.; Scott, A.G.; Orchard, I.; Rehfeld, J.F.; Thorpe,
Proc. Natl. Acad. Sci. U.S.A. 89, 2326-2330, 1992

A;Title: Isolation, structure, and activity of -Phe-Met-Arg-Phe-NH-2 neuropeptides (desig
A;Reference number: A41978; MUID:92196111; PMID:1549595

A;Accession: F41978

A;Status: preliminary

A;Molecule type: protein

A;Residues: 1-9 <DUV>

C;Keywords: amidated carboxyl end; neuropeptide
F;9/Modified site: amidated carboxyl end (Phe) #status experimental

Query Match 33.3%; Score 15; DB 2; Length 9;
Best Local Similarity 75.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

OY 3 SGAD 6
|||
Db 2 SGED 5

RESULT 14

PT0288

Ig heavy chain CRD3 region (clone 4-106) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Aug-1996
C;Accession: PT0288
R;Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A;Title: Preferential utilization of specific immunoglobulin heavy chain diversity and J
A;Reference number: PT0222; MUID:91108337; PMID:1899102
A;Accession: PT0288
A;Molecule type: DNA
A;Residues: 1-9 <YAM>
A;Experimental source: B lymphocyte
C;Keywords: heterotetramer; immunoglobulin

Query Match 33.3%; Score 15; DB 2; Length 9;
Best Local Similarity 75.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 YLSG 4
| | |
Db 5 YSSG 8

RESULT 15

G41946
T-cell receptor gamma chain (2t.23) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 07-May-1999
C;Accession: G41946
R;Whetsell, M.; Mosley, R.L.; Whetsell, L.; Schaefer, F.V.; Miller, K.S.; Klein, J.R.
Mol. Cell. Biol. 11, 5902-5909, 1991
A;Title: Rearrangement and junctional-site sequence analyses of T-cell receptor gamma ge
A;Reference number: A41946; MUID:92049316; PMID:1658619
A;Accession: G41946
A;Status: preliminary; not compared with conceptual translation
A;Molecule type: DNA
A;Residues: 1-9 <WHE>
C;Keywords: T-cell receptor

Query Match 33.3%; Score 15; DB 2; Length 9;
Best Local Similarity 75.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 YLSG 4
| | |
Db 5 YSSG 8

Search completed: January 12, 2004, 14:31:52
Job time : 12.25 secs

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OM protein - protein search, using sw model

Run on: January 12, 2004, 14:21:34 ; Search time 6.25 Seconds
(without alignments)
67.718 Million cell updates/sec

Title: US-09-529-121A-2
Perfect score: 45
Sequence: 1 YLSGADLNL 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 127863 seqs, 47026705 residues

Total number of hits satisfying chosen parameters: 251

Minimum DB seq length: 0
Maximum DB seq length: 9

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SwissProt_41:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	17	37.8	8	1	CPD1_ENTFA	P13269 enterococcu
2	16	35.6	8	1	LCK8_LEUMA	P19990 leucophaea
3	16	35.6	9	1	LMIP_LOCOMI	P31799 locusta mig
4	16	35.6	9	1	PTSP_BOMMO	P82003 bombyx mori
5	15	33.3	9	1	FAR6_CALVO	P41861 calliphora
6	14	31.1	8	1	ALL5_CYPDPO	P82156 cydia pomon
7	14	31.1	8	1	FAR2_MACRS	P83275 macrobrachi
8	14	31.1	9	1	ISOT_CYPCA	P42993 cyprius ca
9	13	28.9	8	1	PLP_BRANA	P81707 brassica na
10	13	28.9	9	1	DSIF_RABIT	P01158 oryctolagus
11	13	28.9	9	1	FAR2_PANRE	P41873 panagrellus
12	13	28.9	9	1	OXYA_SQUAC	P42999 squallus aca
13	13	28.9	9	1	OXYT_RAJCL	P42994 raja clavac
14	12	26.7	7	1	PPH2_LYCES	P83379 lycopersico
15	12	26.7	8	1	CCKN_MACEU	P30369 macropus eu
16	12	26.7	9	1	FARD_CALVO	P41868 calliphora
17	12	26.7	9	1	OXYT_RABIT	P32878 oryctolagus
18	12	26.7	9	1	PGLR_DIAAB	P81179 diatrepes a
19	11	24.4	4	1	FAR3_HIRMB	P42562 hirtudo medi
20	11	24.4	5	1	PACT_PERAM	P01373 periplaneta
21	11	24.4	6	1	CIP2_MYTED	P13737 mytilus edu
22	11	24.4	7	1	FAR2_ASCSU	P31890 ascaris suu
23	11	24.4	7	1	GFRP_MOUSE	P99025 mus musculu
24	11	24.4	7	1	LANC_CARUI	P36960 carnobacter
25	11	24.4	7	1	UF03_MOUSE	P38641 mus musculu
26	11	24.4	8	1	CAD1_ENTFA	P13268 enterococcu
27	11	24.4	8	1	FAR8_HOMAM	P41486 homaruss ame
28	11	24.4	8	1	FAR8_CALVO	P41863 calliphora
29	11	24.4	9	1	D1_NEBNO	P24816 nephrops no
30	11	24.4	9	1	FAR5_CALVO	P41860 calliphora
31	11	24.4	9	1	FAR7_CALVO	P41862 calliphora
32	11	24.4	9	1	MOSF_CIVJA	P19853 clypeaster
33	10	22.2	4	1	ACH1_ACHFU	P35904 achatina fu

34	10	22.2	5	1	UXA4_CHLTR	P38005 chlamydia t
35	10	22.2	6	1	TMOF_SARBU	P41495 sarcophaga
36	10	22.2	6	1	TRPI_PSEPU	P36414 pseudomonas
37	10	22.2	7	1	ALL2_CARMA	P81805 carcinus ma
38	10	22.2	7	1	ALL3_CARMA	P81806 carcinus ma
39	10	22.2	7	1	ALL4_CARMA	P81807 carcinus ma
40	10	22.2	7	1	ALL5_CARMA	P81808 carcinus ma
41	10	22.2	7	1	ALL7_CYPDPO	P82158 cydia pomon
42	10	22.2	7	1	FAR1_MACRS	P83274 macrobrachi
43	10	22.2	7	1	FAR2_PROCL	P38498 procambarus
44	10	22.2	7	1	UN06_PINPS	P81675 pinus pinas
45	10	22.2	8	1	ACT_CARMA	P80709 carcinus ma

ALIGNMENTS

RESULT 1
CPD1_ENTFA
ID_CPDI_ENTFA STANDARD; PRT; 8 AA.
AC P13269;
DT 01-JAN-1990 (Rel. 13, Created)
DT 01-FEB-1990 (Rel. 13, Last sequence update)
DT 01-FEB-1991 (Rel. 17, Last annotation update)
DE Sex pheromone CPDI.
OS Enterococcus faecalis (Streptococcus faecalis).
OC Bacteria; Firmicutes; Lactobacillales; Enterococcaceae; Enterococcus.
OX NCBI_TaxID=1351;
RN [1]
RP SEQUENCE.
RX MEDLINE=85040388; PubMed=6436978;
RA Suzuki A., Mori M., Sagakami Y., Isogai A., Fujino M., Kitada C.,
RA Craig R.A., Clewell D.B.;
RT "Isolation and structure of bacterial sex pheromone, CPDI.";
RL Science 226:849-850(1984).
CC -!- FUNCTION: CPDI IS INVOLVED IN THE CONJUGATIVE TRANSFER OF THE
CC BACTERIOCIN PLASMID PPD1.
CC Pheromone.
KW PHEROMONE.
SQ SEQUENCE 8 AA; 913 MW; 8665B729C682C729 CRC64;

Query Match 37.8%; Score 17; DB 1; Length 8;
Best Local Similarity 75.0%; Pred. No. 1.3e+05;
Matches 3; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLSG 4
Db :|||
5 FLSG 8

RESULT 2
LCK8_LEUMA
ID_LCK8_LEUMA STANDARD; PRT; 8 AA.
AC P19990;
DT 01-FEB-1991 (Rel. 17, Created)
DT 01-FEB-1991 (Rel. 17, Last sequence update)
DT 01-FEB-1991 (Rel. 17, Last annotation update)
DE Leucokinin VIII (L-VIII).
OS Leucophaea maderae (Madeira cockroach).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blaberoidea;
OC Blaberoidea; Leucophaea.
OX NCBI_TaxID=6988;
RN [1]
RP SEQUENCE.
RC TISSUE=Head;
RA Holman G.M., Cook B.J., Nachman R.J.;
RT "Isolation, primary structure and synthesis of leucokinin VII and
RT VIII: the final members of this new family of cephalomyotropic
RT peptides isolated from head extracts of Leucophaea maderae.";
RL Comp. Biochem. Physiol. 88C:31-34(1987).
CC -!- FUNCTION: THIS CEPHALOMYOTROPIC PEPTIDE STIMULATES CONTRACTILE
CC ACTIVITY OF COCKROACH PROTODEUM (HINDGUT).
CC -!- SIMILARITY: TO THE OTHER LEUCOKININS.

DR PIR; JS0318; JS0318.
KW Neuropeptide; Amidation.
FT MOD RES 8
SQ SEQUENCE 8 AA; 902 MW; 736365AB59CAADD8 CRC64;

Query Match 35.6%; Score 16; DB 1; Length 8;
Best Local Similarity 100.0%; Pred. No. 1.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 4 GAD 6
Db 1 GAD 3

RESULT 3
LMIP_LOCMI STANDARD; PRT; 9 AA.
AC P31759;
DT 01-JUL-1993 (Rel. 26, Created)
DT 01-JUL-1993 (Rel. 26, Last sequence update)
DT 01-OCT-1993 (Rel. 27, Last annotation update)
DE Locustamyoinhibiting peptide (LOM-MIP).
OS Locusta migratoria (Migratory locust).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Orthopteroidea; Orthoptera; Caelifera; Acridomorpha;
OC Acridoidea; Acrididae; Oedipodinae; Locusta.
OX NCBI_TaxID=7004;
RN [1]

RP SEQUENCE.
RX MEDLINE=92179466; PubMed=1796179;
RA Schoofs L., Holman G.M., Hayes T.K., Nachman R.J., de Loof A.;
RT "Isolation, identification and synthesis of locustamyoinhibiting
RT peptide (LOM-MIP), a novel biologically active neuropeptide from
RT Locusta migratoria.";
RL Regul. Pept. 36:111-119(1991).
CC -1- FUNCTION: SUPPRESSES SPONTANEOUS CONTRACTIONS OF THE HINDGUT AND
CC OVIDUCT.
CC -1- TISSUE SPECIFICITY: NEURONS LOCATED IN TWO VENTRAL CELL CLUSTERS
CC IN THE SUBESOPHAGEAL GANGLION.
DR PIR; A60065; AKLQIM.
KW Amidation; Neuropeptide.
FT MOD RES 9
SQ SEQUENCE 9 AA; 1060 MW; 387D7DD4472AB6C3 CRC64;

Query Match 35.6%; Score 16; DB 1; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 6 DLN 8
Db 4 DLN 6

RESULT 4
PTSP_BOMMO STANDARD; PRT; 9 AA.
ID PTSP_BOMMO
AC P82003;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Prothoracicostatic peptide (Bom-PTSP).
OS Bombyx mori (Silk moth).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia; Bombycoidea;
OC Bombycidae; Bombyx.
OX NCBI_TaxID=7091;
RN [1]

RP SEQUENCE.
RC STRAIN=C145 X N140; TISSUE=Brain;
RX MEDLINE=20002634; PubMed=10531308;
RA Hua Y.-J., Tanaka Y., Nakamura K., Sakakibara M., Nagata S.,
RA Kataoka H.;
RT "Identification of a prothoracicostatic peptide in the larval brain of

RT the silkworm, Bombyx mori.";
RL J. Biol. Chem. 274:31169-31173(1999).
RN [2]

RP ERRATUM.
RA Hua Y.-J., Tanaka Y., Nakamura K., Sakakibara M., Nagata S.,
RA Kataoka H.;
RL J. Biol. Chem. 275:9892-9892(2000).
CC -1- FUNCTION: Inhibits ecdysteroid biosynthesis in the prothoracic
CC gland.
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- DEVELOPMENTAL STAGE: EARLY FIFTH INSTAR.
KW Hormone; Amidation.
FT MOD RES 9
SQ SEQUENCE 9 AA; 1090 MW; 3878C5B4472AB6C3 CRC64;

Query Match 35.6%; Score 16; DB 1; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 6 DLN 8
Db 4 DLN 6

RESULT 5
FAR6_CALVO STANDARD; PRT; 9 AA.
ID FAR6_CALVO
AC P41861;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-NOV-1995 (Rel. 32, Last annotation update)
DE Calliphora vomitoria 6.
OS Calliphora vomitoria (Blue blowfly).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC Calliphoridae; Calliphora.
OX NCBI_TaxID=27454;
RN [1]

RP SEQUENCE.
RC TISSUE=Thoracic ganglion;
RX MEDLINE=92196111; PubMed=1549595;
RA Duve H., Johnsen A.H., Sewell J.C., Scott A.G., Orchard I.,
RA Rehfeld J.F., Thorpe A.;
RT "Isolation, structure, and activity of -Phe-Met-Arg-Phe-NH2
RT neuropeptides (designated callifMRFamides) from the blowfly
RT Calliphora vomitoria.";
RL Proc. Natl. Acad. Sci. U.S.A. 89:2326-2330(1992).
CC -1- SIMILARITY: BELONGS TO THE FARP (FMRFAMIDE RELATED PEPTIDE)
CC FAMILY.
CC PIR; F41978; F41978.
DR Neuropeptide; Amidation.
FT MOD RES 9
SQ SEQUENCE 9 AA; 1058 MW; 96D10699CAB6D865 CRC64;

Query Match 33.3%; Score 15; DB 1; Length 9;
Best Local Similarity 75.0%; Pred. No. 1.3e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 3 SGAD 6
Db 2 SGAD 5

RESULT 6
ALL5_CYDPO STANDARD; PRT; 8 AA.
ID ALL5_CYDPO
AC P82156;
DT 30-MAY-2000 (Rel. 39, Created)
DT 30-MAY-2000 (Rel. 39, Last sequence update)
DT 30-MAY-2000 (Rel. 39, Last annotation update)
DE Cydia pomonella 5.
OS Cydia pomonella (Codling moth).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;

OC Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia;
OC Tortricidae; Tortricidae; Olethreutinae; Cydia.
OX NCBI_TaxID=82600;
RN [1]
RP SEQUENCE.
RC TISSUE=Larva;
RX MEDLINE=98054539; PubMed=9392829;
RA Duvé H., Johnsen A.H., Maestro J.-L., Scott A.G., Winstanley D.,
RT Davey M., East P.D., Thorpe A.;
RL "Lepidopteran peptides of the allatostatin superfamily.";
CC Peptides 18:1301-1309(1997).
KW -1- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
FT Neuropeptide; Amidation.
SQ MOD RES 8
SEQUENCE 8 AA; 898 MW; 922879CABB58640D CRC64;

Query Match 31.1%; Score 14; DB 1; Length 8;
Best Local Similarity 50.0%; Pred. No. 1.3e+05;
Matches 3; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

QY 4 GADLNL 9
Db 3 GYDFGL 8

RESULT 7
PAR2_MACRS
ID FAR2_MACRS STANDARD; PRT; 8 AA.
AC P83275;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE FMRFamide-like neuropeptide FLP2 (ADKNFLRF-amide).
OS Macrobrachium rosenbergii (Giant fresh water prawn).
OC Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Caridea;
OC Palaemonoidea; Palaemonidae; Macrobrachium.
OX NCBI_TaxID=79674;
RN [1]
RP SEQUENCE, AND MASS SPECTROMETRY.
RC TISSUE=Eyestalk;
RA Sithigorngul P., Sarathongkum W., Jaidechoey S., Longyant S.,
RT Sithigorngul W.;
RL "Novel FMRFamide-like neuropeptides from the eyestalk of the giant
RT freshwater prawn Macrobrachium rosenbergii.";
RL Comp. Biochem. Physiol. 120B:587-595(1998).
CC -1- MASS SPECTROMETRY: MW=1009.4; METHOD=MALDI.
CC -1- SIMILARITY: BELONGS TO THE FARP (FMRFAMIDE RELATED PEPTIDE)
CC FAMILY.
CC GO; GO:0007218; P:neuropeptide signaling pathway; TAS.
DR Neuropeptide; Amidation.
KM MOD RES 8
FT MOD RES 8
SEQUENCE 8 AA; 1010 MW; 9CD40729C4433AAD CRC64;

Query Match 31.1%; Score 14; DB 1; Length 8;
Best Local Similarity 75.0%; Pred. No. 1.3e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 5 ADLN 8
Db 1 ADKN 4

RESULT 8
ISOT_CYPCA
ID ISOT_CYPCA STANDARD; PRT; 9 AA.
AC P42993;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-NOV-1995 (Rel. 32, Last annotation update)
DE Isotocin.
OS Cyprinus carpio (Common carp).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
OC Cyprinidae; Cyprinus.
OX NCBI_TaxID=7962;
RN [1]
RP SEQUENCE.
RC TISSUE=Pituitary;
RA Acher R., Chauvet J., Chauvet M.-T., Crepy D.;
RT "Characterization of neurohypophyseal hormones from a fresh water bony
RT fish, the carp (Cyprinus carpio). Comparison with hormones from sea
RT water bony fish.";
RL Comp. Biochem. Physiol. 14:245-254(1965).
CC -1- FUNCTION: ANTIDIURETIC HORMONE.
CC -1- SIMILARITY: BELONGS TO THE VASOPRESSIN/OXYTOCIN FAMILY.
CC PIR; A61364; A61364.
DR InterPro; IPR000981; Neurhyp_horm.
DR Pfam; PF00220; hormone4; 1.
DR PROSITE; PS00264; NEUROHYPOPHYS_HORM; 1.
KW Hormone; Amidation.
FT DISULFID 1
FT MOD RES 9
SEQUENCE 9 AA; 969 MW; 17FF476EB45B04B CRC64;

Query Match 31.1%; Score 14; DB 1; Length 9;
Best Local Similarity 28.6%; Pred. No. 1.3e+05;
Matches 2; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

QY 1 YLSGADL 7
Db 2 YISNCPI 8

RESULT 9
PLP_BRANA
ID PLP_BRANA STANDARD; PRT; 8 AA.
AC P81707;
DT 15-JUL-1999 (Rel. 38, Created)
DT 15-JUL-1999 (Rel. 38, Last sequence update)
DT 30-MAY-2000 (Rel. 39, Last annotation update)
DE Placental lipid-associated protein (Fragment).
OS Brassica napus (Rape).
OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae;
OC eurosids II; Brassicales; Brassicaceae; Brassica.
OX NCBI_TaxID=3708;
RN [1]
RP SEQUENCE.
RC STRAIN=CV. TOPAZ; TISSUE=Tapetum;
RX MEDLINE=9349136; PubMed=10420651;
RA Hernandez-pinzon I., Rose J.H.B., Barnes K.A., Damant A.P.,
RT Murphy D.J.;
RT "Composition and role of tapetal lipid bodies in the biogenesis of the
RT pollen coat of Brassica napus.";
RL Planta 208:588-598(1999).
CC -1- FUNCTION: MAY PLAY A STRUCTURAL ROLE IN THE ELAIOPLAST, A TAPETUM-
CC SPECIFIC PLASTIDIAL LIPID ORGANELLE.
CC -1- TISSUE SPECIFICITY: TAPETUM OF ANTHERS.
FT NON TER 8
SEQUENCE 8 AA; 989 MW; 9D7B1AA452CAA042 CRC64;

Query Match 28.9%; Score 13; DB 1; Length 8;
Best Local Similarity 66.7%; Pred. No. 1.3e+05;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 6 DLN 8
Db 3 DVN 5

RESULT 10
DSIP_RABIT
ID DSIP_RABIT STANDARD; PRT; 9 AA.
AC P01158;
DT 21-JUL-1986 (Rel. 01, Created)

DT 21-JUL-1986 (Rel. 01, Last sequence update)
DT 16-OCT-2001 (Rel. 40, Last annotation update)
DE Delta sleep-inducing peptide (DSIP).
OS Oryctolagus cuniculus (Rabbit).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
OX NCBI_TaxID=9986;
RN [1]
RE SEQUENCE.
RX MEDLINE=77185324; PubMed=862769;
RA Monnier M., Dudler L., Gächter R., Maier P.F., Tobler H.J.,
RA Schoenenberger G.A.;
RT "The delta sleep inducing peptide (DSIP). Comparative properties of
RT the original and synthetic nonapeptide.";
RL Experientia 33:548-552(1977).
RN [2]
RN SEQUENCE, AND SYNTHESIS.
RX MEDLINE=79054421; PubMed=568769;
RA Schoenenberger G.A., Maier P.F., Tobler H.J., Wilson K., Monnier M.;
RT "The delta EEG (sleep)-inducing peptide (DSIP). XI. Amino-acid
RT analysis, sequence, synthesis and activity of the nonapeptide.";
RL Pflügers Arch. 376:119-129(1978).
RN [3]
RN REVIEW.
RX MEDLINE=87175129; PubMed=3550726;
RA Graf M.V., Kaestlin A.J.;
RT "Delta-sleep-inducing peptide (DSIP): an update.";
RL Peptides 7:1165-1187(1986).
CC -1- FUNCTION: WHEN INFUSED INTO THE MESODIENCEPHALIC VENTRICLE OF
CC RECIPIENT RABBITS INDUCES SPINDLE AND DELTA EEG ACTIVITY AND
CC REDUCED MOTOR ACTIVITIES.
CC -1- MISCELLANEOUS: THIS PEPTIDE WAS OBTAINED FROM DIALYSATES OF
CC OCCIPITAL VENOUS SINUS BLOOD FROM RABBITS KEPT ASLEEP BY ELECTRIC
CC STIMULATION OF THE THALAMUS.
CC -1- DATABASE: NAME=Protein Spotlight;
CC NOTE=Issue 8 of March 2001;
CC WWW="http://www.expasy.org/spotlight/articles/sp11c008.html".
DR PIR; A01422; QDRB.
SQ SEQUENCE 9 AA; 849 MW; DDD365BDDAA8787D CRC64;

Query Match 28.9%; Score 13; DB 1; Length 9;
Best Local Similarity 50.0%; Pred. No. 1.3e+05;
Matches 2; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 3 SGAD 6
: | |
Db 2 AGGD 5

RESULT 11
FAR2_PANRE
ID FAR2_PANRE STANDARD; PRT; 9 AA.
AC P41873;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-NOV-1995 (Rel. 32, Last annotation update)
DE FMRFamide-like neuropeptide PF2 (SADPNFLRF-amide).
OS Panagrellus redivivus.
OC Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida;
OC Panagrolaimoidea; Panagrolaimidae; Panagrellus.
OX NCBI_TaxID=6233;
RN [1]
RN SEQUENCE.
RX MEDLINE=93027659; PubMed=1408999;
RA Geary T.G., Price D.A., Bowman J.W., Winterrowd C.A., Mackenzie C.D.,
RA Garrison R.D., Williams J.F., Friedman A.R.;
RT "Two FMRFamide-like peptides from the free-living nematode
RT Panagrellus redivivus.";
RL Peptides 13:209-214(1992).
CC -1- FUNCTION: MYOACTIVE.
CC -1- TISSUE SPECIFICITY: NERVE CORDS AND PAIRED GROUPS OF CELLS LOCATED
CC CAUDALLY TO THE BASE OF THE PHARYNX.
CC -1- SIMILARITY: BELONGS TO THE FARP (FMRFAMIDE RELATED PEPTIDE)

CC FAMILY.
KM Neuropeptide; Amidation.
FT MOD RES 9
SQ SEQUENCE 9 AA; 1066 MW; DA0B0729C4576AAD CRC64;

Query Match 28.9%; Score 13; DB 1; Length 9;
Best Local Similarity 75.0%; Pred. No. 1.3e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 5 ADLN 8
: | |
Db 2 ADPN 5

RESULT 12
OXYA_SQUAC
ID OXYA_SQUAC STANDARD; PRT; 9 AA.
AC P42959;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-NOV-1995 (Rel. 32, Last annotation update)
DE Aspartocin (Aspargtocin).
OS Squalus acanthias (Spiny dogfish).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Chondrichthyes;
OC Elasmobranchii; Squala; Squaloidei; Squalidae; Squalus.
OX NCBI_TaxID=7797;
RN [1]
RN SEQUENCE.
RX MEDLINE=73031727; PubMed=5083097;
RA Acher R., Chauvet J., Chauvet M.-T.;
RT "Phylogeny of the neurohypophysial hormones. Two new active peptides
RT isolated from a cartilaginous fish, Squalus acanthias.";
RL Eur. J. Biochem. 29:12-19(1972).
RN [2]
RN SEQUENCE.
RX MEDLINE=72128038; PubMed=4622083;
RA Acher R., Chauvet J., Chauvet M.-T., Fontaine M.;
RT "Identification of 2 new neurohypophyseal hormones, valitocin (Val8-
RT oxytocin) and aspartocin (Asn4-oxytocin) in a selachian fish, the
RT spiny dog-fish (Squalus acanthias).";
RL C. R. Acad. Sci., D, Sci. Nat. 274:313-316(1972).
CC -1- SIMILARITY: BELONGS TO THE VASOPRESSIN/OXYTOCIN FAMILY.
CC InterPro; IPR000981; Neurohyp_horm.
DR Pfam; PF00220; hormone4; 1.
DR PROSITE; PS00264; NEUROHYPOPHYS_HORM; 1.
KW Hormone; Amidation.
FT DISULFID 1 6
FT MOD RES 9 9
SQ SEQUENCE 9 AA; 996 MW; 17F8376EB444404B CRC64;

Query Match 28.9%; Score 13; DB 1; Length 9;
Best Local Similarity 28.6%; Pred. No. 1.3e+05;
Matches 2; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

QY 1 YLGGADL 7
: : : |
Db 2 YINNCPL 8

RESULT 13
OXYT_RAJCL
ID OXYT_RAJCL STANDARD; PRT; 9 AA.
AC P42954;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-NOV-1995 (Rel. 32, Last annotation update)
DE Glumitocin.
OS Raja clavata (Thornback ray).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Chondrichthyes;
OC Elasmobranchii; Squala; Hypnosquala; Pristiogorjia; Batoida;
OC OC Rajiformes; Rajidae; Raja.
OX NCBI_TaxID=7781;
RN [1]

RP SEQUENCE.
RX MEDLINE=66123415; PubMed=5880565;
RA Acher R., Chauvet J., Chauvet M.-T., Crepy D.;
RT "Phylogeny of neurophyphyseal peptides: isolation of a new hormone,
glumitocin (Ser 4-Gln 8-ocytocin) present in a cartilaginous fish,
the ray (Raia clavata).";
RL Biochim. Biophys. Acta 107:393-396(1965).
CC -|- FUNCTION: ANTIDIURETIC HORMONE.
CC -|- SIMILARITY: BELONGS TO THE VASOPRESSIN/OXYTOCIN FAMILY.
DR InterPro; IPR000981; Neurohyp_horm.
DR Pfam; PF00220; hormone4; 1.
DR PROSITE; PS00264; NEUROHYPOPHYS_HORM; 1.
KM Hormone; Amidation.
FT DISULFID 1 6
FT MOD_RES 9 9 AMIDATION.
SQ SEQUENCE 9 AA; 984 MW; 17E9C76EB455B04B CRC64;

Query Match 28.9%; Score 13; DB 1; Length 9;
Best Local Similarity 66.7%; Pred. No. 1.3e+05;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLS 3
Db 2 YIS 4

RESULT 14
PPH2_LYCES STANDARD; PRT; 7 AA.
ID PPH2_LYCES
AC P83379;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Purple acid phosphatase isozyme LesAP2 (EC 3.1.3.2) (Fragment).
OS Lycopersicon esculentum (Tomato).
OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
OC Asteridae; lamids; Solanales; Solanaceae; Solanum.
OX NCBI_TaxID=4081;
RN [1]
RP SEQUENCE, CATALYTIC ACTIVITY, SUBUNIT, SUBCELLULAR LOCATION, AND
RC GLYCOSYLATION.
RC STRAIN=cv. Moneymaker; TISSUE=seed;
RX MEDLINE=22361242; PubMed=12473124;
RA Bozzo G.G., Raghothama K.G., Plaxton W.C.;
RT "Purification and characterization of two secreted purple acid
phosphatase isozymes from phosphate-starved tomato (Lycopersicon
esculentum) cell cultures.";
RL Eur. J. Biochem. 269:6278-6286(2002).
CC -|- CATALYTIC ACTIVITY: An orthophosphoric monoester + H(2)O = an
CC alcohol + phosphate.
CC -|- SUBUNIT: Monomer.
CC -|- SUBCELLULAR LOCATION: Secreted.
CC -|- PTM: Glycosylated.
CC -|- MISCELLANEOUS: In L.esculentum there are at least two isozymes of
CC purple acid phosphatase.
KW Hydrolase; Glycoprotein.
FT NON_TER 1 1
FT NON_TER 7 7
SQ SEQUENCE 7 AA; 810 MW; 672AA862C9C729A0 CRC64;

Query Match 26.7%; Score 12; DB 1; Length 7;
Best Local Similarity 42.9%; Pred. No. 1.3e+05;
Matches 3; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 YLSGADL 7
Db 1 FLFVGDL 7

AC P30369;
DT 01-APR-1993 (Rel. 25, Created)
DT 01-APR-1993 (Rel. 25, Last sequence update)
DT 15-SEP-2003 (Rel. 42, Last annotation update)
DE Cholecystokinin (CCK).
GN CCK.
OS Macropus eugenii (Tamar wallaby), and
OS Dasyurus viverrinus (Southeastern quoll).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Metatheria; Diprotodontia; Macropodidae; Macropus.
OX NCBI_TaxID=9315, 9279;
RN [1]
RP SEQUENCE.
RC SPECIES=M.eugenii, and D.viverrinus;
RC TISSUE=Brain;
RX MEDLINE=88234141; PubMed=3375140;
RA Fan Z.W., Eng J., Shaw G., Yalow R.S.;
RT "Cholecystokinin octapeptide purified from brains of Australian
marsupials.";
RL Peptides 9:429-431(1988).
CC -|- FUNCTION: THIS PEPTIDE HORMONE INDUCES GALL BLADDER CONTRACTION
CC AND THE RELEASE OF PANCREATIC ENZYMES IN THE GUT. ITS FUNCTION
CC IN THE BRAIN IS NOT CLEAR.
CC -|- SIMILARITY: BELONGS TO THE GASTRIN/CHOLECYSTOKININ FAMILY.
CC PIR; A43001; A43001.
DR PIR; PQ0012; PQ0012.
DR InterPro; IPR001651; Gastrin.
DR PROSITE; PS00259; GASTRIN; 1.
KW Amidation; Sulfation; Hormone.
FT MOD_RES 2 2 SULFATION.
FT MOD_RES 8 8 AMIDATION.
SQ SEQUENCE 8 AA; 1064 MW; DDCAA68378768B5A CRC64;

Query Match 26.7%; Score 12; DB 1; Length 8;
Best Local Similarity 33.3%; Pred. No. 1.3e+05;
Matches 2; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 YLSGAD 6
Db 2 YMGWMD 7

Search completed: January 12, 2004, 14:29:02
Job time : 7.25 secs

RESULT 15
CCKN_MACEU STANDARD; PRT; 8 AA.
ID_CCKN_MACEU

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GenCore version 5.1.6
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OM protein - protein search, using SW model

Run on: January 12, 2004, 14:24:44 ; Search time 25.75 Seconds
(without alignments)
90.193 Million cell updates/sec

Title: US-09-529-121A-2
Perfect score: 45
Sequence: 1 YLSGADLNL 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 830525 seqs, 258052604 residues

Total number of hits satisfying chosen parameters: 775

Minimum DB seq length: 0
Maximum DB seq length: 9

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SPTREMBL_23:*
1: sp_archaea:*
2: sp_bacteria:*
3: sp_fungi:*
4: sp_human:*
5: sp_invertebrate:*
6: sp_mammal:*
7: sp_mhc:*
8: sp_organelle:*
9: sp_phage:*
10: sp_plant:*
11: sp_rodent:*
12: sp_virus:*
13: sp_vertebrate:*
14: sp_unclassified:*
15: sp_virus:*
16: sp_bacteriaphage:*
17: sp_archaea:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	20	44.4	8	3	Q9HDS4	Q9hds4 aspergillus
2	17	37.8	7	11	Q63480	Q63480 rattus norv
3	17	37.8	8	6	Q8WMS1	Q8wms1 bos taurus
4	16	35.6	8	13	P82079	P82079 limnodynast
5	15	33.3	8	3	P87225	P87225 baccharomyc
6	15	33.3	8	4	Q9UMC7	Q9umc7 homo sapien
7	14	31.1	8	2	Q9X3K1	Q9x3k1 prochloroco
8	14	31.1	8	5	Q94695	Q94695 physarum po
9	14	31.1	8	13	Q9P869	Q9p869 gallus gall
10	14	31.1	9	1	Q50832	Q50832 methanococc
11	14	31.1	9	4	Q16220	Q16220 homo sapien
12	14	31.1	9	4	Q95953	Q95953 homo sapien
13	14	31.1	9	6	Q9TRSO	Q9trso oryctolagus
14	14	31.1	9	11	Q35953	Q35953 mus musculu
15	13	28.9	7	2	Q8KMS3	Q8kms3 klebsiella
16	13	28.9	7	11	O55184	O55184 rattus norv

17	13	28.9	9	2	P83222	P83222 streptomyc
18	13	28.9	9	5	Q9TWD6	Q9twd6 leptinotars
19	13	28.9	9	6	Q9TRW2	Q9trw2 oryctolagus
20	13	28.9	9	13	Q8JU12	Q8jj12 carassius a
21	13	28.9	9	13	Q8JU18	Q8jj18 danio aequi
22	13	28.9	9	13	Q8JU14	Q8jj14 danio frank
23	13	28.9	9	13	Q8JU10	Q8jj10 notropis ch
24	13	28.9	9	13	Q8JU16	Q8jj16 danio albol
25	12	26.7	8	2	P77556	P77556 escherichia
26	12	26.7	8	4	Q15901	Q15901 homo sapien
27	12	26.7	8	4	Q9UMH9	Q9umh9 homo sapien
28	12	26.7	8	4	Q8IUB8	Q8iub8 homo sapien
29	12	26.7	8	7	Q95213	Q95213 oryctolagus
30	12	26.7	8	13	Q91098	Q91098 manorina me
31	12	26.7	8	13	Q90498	Q90498 erythrura g
32	12	26.7	9	2	Q9R635	Q9r635 chlamydia t
33	12	26.7	9	2	Q57328	Q57328 aeromonas s
34	12	26.7	9	2	Q44377	Q44377 aeromonas t
35	12	26.7	9	2	Q44468	Q44468 aeromonas v
36	12	26.7	9	2	Q43928	Q43928 aeromonas p
37	12	26.7	9	2	Q44001	Q44001 aeromonas e
38	12	26.7	9	4	Q9H522	Q9h522 homo sapien
39	12	26.7	9	4	Q9UCN5	Q9ucn5 homo sapien
40	12	26.7	9	5	Q27396	Q27396 babesia bov
41	12	26.7	9	5	O96417	O96417 drosophila
42	12	26.7	9	6	Q28112	Q28112 bos taurus
43	12	26.7	9	6	Q94NB1	Q94nb1 microcebus
44	12	26.7	9	8	Q94NB2	Q94nb2 microcebus
45	12	26.7	9	8	Q94NA9	Q94na9 daubentonia

ALIGNMENTS

RESULT 1						
Q9HDS4	Q9HDS4	PRELIMINARY;	PRT;	8	AA.	
ID	Q9HDS4					
AC	Q9HDS4;					
DT	01-MAR-2001 (Tremblrel. 16, Created)					
DT	01-MAR-2001 (Tremblrel. 16, Last sequence update)					
DT	01-MAR-2001 (Tremblrel. 16, Last annotation update)					
DE	TRPC polypeptide (Fragment).					
GN	TRPC.					
OS	Aspergillus flavus.					
OC	Eukaryota; Fungi; Ascomycota; Pezizomycotina; Eurotiomycetes;					
OC	Eurotiiales; Trichocomaceae; mitosporic Trichocomaceae; Aspergillus.					
OX	NCBI_TaxID=5059;					
OX	[1]					
RN	SEQUENCE FROM N.A.					
RP	STRAIN=A55;					
RC	Geiser D.M., Dörner J.W., Horn B.W., Taylor J.W.;					
RA	"The phylogenetics of mycotoxin and sclerotium production in					
RT	Aspergillus flavus and Aspergillus oryzae."					
RL	Submitted (APR-2000) to the EMBL/GenBank/DBJ databases.					
DR	EMBL; AF261861; AAG16135.1; -					
KW	Polypeptide.					
FT	NON_TER	8				
FT	SEQUENCE	8 AA;	807 MW;	F3B2C72AB5B87DD6	CRC64;	
SQ						
Query Match						
Best Local Similarity 44.4%; Score 20; DB 3; Length 8;						
Matches 3; Conservativity 50.0%; Pred. No. 8.3e+05;						
Matches 3; Mismatches 0; Indels 0; Gaps 0;						
QY	2	LSGADL	7			
Db	1	MAGSDL	6			
RESULT 2						
ID	Q63480	PRELIMINARY;	PRT;	7	AA.	
AC	Q63480;					
DT	01-NOV-1996 (Tremblrel. 01, Created)					

```
DT 01-NOV-1996 (TREMBlrel. 01, Last sequence update)
DT 01-DEC-2001 (TREMBlrel. 19, Last annotation update)
DE TR4-NS orphan receptor (Fragment).
GN Rattus norvegicus (Rat).
OS Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=96198747; PubMed=8612486;
RA Yoshikawa T., Makino S., Gao X.M., Xing G.Q., Chuang D.M.,
RA Detera-Wadleigh S.D.;
RT "Splice variants of rat TR4 orphan receptor: differential expression
RT of novel sequences in the 5'-untranslated region and C-terminal
RT domain.";
RL Endocrinology 137:1562-1571(1996).
DR EMBL; U59125; AAB02827.1; -.
KW Receptor.
FT NON_TER 1 1
SQ SEQUENCE 7 AA; 758 MW; 672AA87864005350 CRC64;

Query Match
Best Local Similarity 37.8%; Score 17; DB 11; Length 7;
Matches 3; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 2 LSGADL 7
: |||
Db 2 IRGDL 7

RESULT 3
Q8WNS1 PRELIMINARY; PRT; 8 AA.
AC Q8WNS1;
DT 01-MAR-2002 (TREMBlrel. 20, Created)
DT 01-MAR-2002 (TREMBlrel. 20, Last sequence update)
DT 01-MAR-2002 (TREMBlrel. 20, Last annotation update)
DE X-linked zinc finger protein (Fragment).
GN ZFX.
OS Bos taurus (Bovine).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC Bovidae; Bovinae; Bos.
OX NCBI_TaxID=9913;
RN [1]
RP SEQUENCE FROM N.A.
RA Poloumienko A., Blecher S.;
RT "Comparison between intron-exon structures in ZFX and ZFY genes.";
RL Submitted (NOV-1997) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF045782; AAL58190.1; -.
FT NON_TER 1 1
FT NON_TER 8 8
SQ SEQUENCE 8 AA; 904 MW; DF1DC2C4472AAB1A CRC64;

Query Match
Best Local Similarity 37.8%; Score 17; DB 6; Length 8;
Matches 3; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 6 DLNL 9
|||
Db 3 DLNV 6

RESULT 4
P82079 PRELIMINARY; PRT; 8 AA.
AC P82079;
DT 01-MAY-2000 (TREMBlrel. 13, Created)
DT 01-MAY-2000 (TREMBlrel. 13, Last sequence update)
DT 01-MAY-2000 (TREMBlrel. 13, Last annotation update)
DE DYNASTIN 1.
OS Limnodynastes interioris (Giant banjo frog).
```

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OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Neobatrachia; Bufonidae; Myobatrachidae;
OC Limnodynastinae; Limnodynastes.
OX NCBI_TaxID=30362;
RN [1]
RP SEQUENCE, AND MASS SPECTROMETRY.
RC TISSUE=TIBIAL GLAND;
RA Raftery M.J., Bradford A.M., Bowie J.H., Wallace J.C., Tyler M.J.;
RT "Peptides from Australian frogs. The structure of the dynastins from
RT the banjo frogs Limnodynastes interioris, Limnodynastes dumerilii and
RT Limnodynastes terraereginae.";
RL Aust. J. Chem. 46:833-842(1993).
CC -I- MASS SPECTROMETRY: MW=729; METHOD=FAB.
KW Amphibian skin.
SQ SEQUENCE 8 AA; 729 MW; 7C28772865B72728 CRC64;

Query Match
Best Local Similarity 35.6%; Score 16; DB 13; Length 8;
Matches 4; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 2 LSGADL 7
: |||
Db 3 LSGGL 8

RESULT 5
P87225 PRELIMINARY; PRT; 8 AA.
AC P87225;
DT 01-JUL-1997 (TREMBlrel. 04, Created)
DT 01-NOV-1999 (TREMBlrel. 12, Last sequence update)
DT 01-OCT-2002 (TREMBlrel. 22, Last annotation update)
DE GIN11 protein (Fragment).
OS Saccharomyces cerevisiae (Baker's yeast).
OC Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
OC Saccharomycetales; Saccharomycetaceae; Saccharomyces.
OX NCBI_TaxID=4932;
RN [1]
RP SEQUENCE FROM N.A.
RA wedler H., Wedler E., Scharfe M., Wambutt R.;
RL Submitted (MAY-1996) to the EMBL/GenBank/DBJ databases.
RN [2]
RP SEQUENCE FROM N.A.
RA MIPS;
RL Submitted (MAY-1996) to the EMBL/GenBank/DBJ databases.
DR EMBL; Z73169; CAA97518.2; -.
FT NON_TER 1 1
FT NON_TER 1 1
SQ SEQUENCE 8 AA; 1019 MW; 4E21A9C449D5B73B CRC64;

Query Match
Best Local Similarity 33.3%; Score 15; DB 3; Length 8;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLS 3
|||
Db 1 YLS 3

RESULT 6
Q9UMC7 PRELIMINARY; PRT; 8 AA.
AC Q9UMC7;
DT 01-MAY-2000 (TREMBlrel. 13, Created)
DT 01-MAY-2000 (TREMBlrel. 13, Last sequence update)
DT 01-MAY-2000 (TREMBlrel. 13, Last annotation update)
DE SHMT protein (Fragment).
GN SHMT.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
```

RA Chave K.J., Snell K., Sanders P.G.;
RT "Isolation and characterisation of human genomic sequences encoding
RT cytosolic serine hydroxymethyltransferase.";
RL Biochem. Soc. Trans. 25:53-53(1997).
DR EMBL: Y14492; CAB54844.1; -.
FT NON_TER 1 1
FT NON_TER 8 8
SQ SEQUENCE 8 AA; 868 MW; 7C205721E44AB5B8 CRC64;

Query Match 33.3%; Score 15; DB 4; Length 8;
Best Local Similarity 50.0%; Pred. No. 8.3e+05;
Matches 3; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 4 GADLNL 9
Db 1 GSDNHL 6

RESULT 7
Q9X3K1 PRELIMINARY; PRT; 8 AA.
AC Q9X3K1;
DT 01-NOV-1999 (TREMBlrel. 12, Created)
DT 01-NOV-1999 (TREMBlrel. 12, Last sequence update)
DT 01-NOV-1999 (TREMBlrel. 12, Last annotation update)
DE Cytochrome b (Fragment).
GN PETB.
OS Prochlorococcus sp.
OC Bacteria; Cyanobacteria; Prochlorophytes; Prochlorococcaceae;
OC Prochlorococcus.
OX NCBI_TaxID=1220;
RN [1]
RP SEQUENCE FROM N.A.
RA Urbach E., Chisholm S.W.;
RT "Genetic diversity in Prochlorococcus populations flow cytometrically
RT sorted from the Sargasso Sea and Gulf Stream.";
RL Limnol. Oceanog. 43:1615-1630(1998).
DR EMBL: AF070193; AAD23233.1; -.
FT NON_TER 1 1
SQ SEQUENCE 8 AA; 799 MW; 10376865B72866D3 CRC64;

Query Match 31.1%; Score 14; DB 2; Length 8;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 2 LSG 4
Db 4 LSG 6

RESULT 8
Q94695 PRELIMINARY; PRT; 8 AA.
AC Q94695;
DT 01-FEB-1997 (TREMBlrel. 02, Created)
DT 01-FEB-1997 (TREMBlrel. 02, Last sequence update)
DT 01-NOV-1998 (TREMBlrel. 08, Last annotation update)
DE Actin (Fragment).
GN ARDC.
OS Physarum polyccephalum (Slime mold).
OC Eukaryota; Mycetozoa; Myxogastrea; Myxogastromycetidae; Physarida;
OC Physarum.
OX NCBI_TaxID=5791;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=96182101; PubMed=8622700;
RA Benard M., Lagnel C., Pallotta D., Pierron G.;
RT "Mapping of a replication origin within the promoter region of two
RT unlinked, abundantly transcribed actin genes of Physarum
RT polyccephalum.";
RL Mol. Cell. Biol. 16:968-976(1996).
DR EMBL: M73459; AAB03706.1; -.
FT NON_TER 8 8

SQ SEQUENCE 8 AA; 878 MW; F4C6C2CAB187B16 CRC64;

Query Match 31.1%; Score 14; DB 5; Length 8;
Best Local Similarity 33.3%; Pred. No. 8.3e+05;
Matches 2; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 2 LSGADL 7
Db 1 MEGEDV 6

RESULT 9
Q9PS69 PRELIMINARY; PRT; 8 AA.
AC Q9PS69;
DT 01-MAY-2000 (TREMBlrel. 13, Created)
DT 01-MAY-2000 (TREMBlrel. 13, Last sequence update)
DT 01-JUN-2002 (TREMBlrel. 21, Last annotation update)
DE Low density lipoprotein receptor-related protein (Fragment).
OS Gallus gallus (Chicken).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC Gallus.
OX NCBI_TaxID=9031;
RN [1]
RP SEQUENCE.
RX MEDLINE=92011685; PubMed=1918027;
RA Stifani S., Barber D.L., Aebersold R., Steyrer E., Shen X., Nimpf J.,
RA Schneider W.J.;
RT "The laying hen expresses two different low density lipoprotein
RT receptor-related proteins.";
RL J. Biol. Chem. 266:19079-19087(1991).
FT NON_TER 1 1
FT NON_TER 8 8
SQ SEQUENCE 8 AA; 846 MW; C007272DD865BAAA CRC64;

Query Match 31.1%; Score 14; DB 13; Length 8;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 3 SGA 5
Db 3 SGA 5

RESULT 10
Q50832 PRELIMINARY; PRT; 9 AA.
AC Q50832;
DT 01-NOV-1996 (TREMBlrel. 01, Created)
DT 01-NOV-1996 (TREMBlrel. 01, Last sequence update)
DT 01-NOV-1996 (TREMBlrel. 01, Last annotation update)
DE Intergenic AT-rich DNA sequence (Fragment).
OS Methanococcus voltae.
OC Archaea; Euryarchaeota; Methanococci; Methanococcales;
OC Methanococcaceae; Methanococcus.
OX NCBI_TaxID=2188;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=85230552; PubMed=4006907;
RA Bollschweiler C., Kuehn R., Klein A.;
RT "Non-repetitive AT-rich sequences are found in intergenic regions of
RT Methanococcus voltae DNA.";
RL EMBO J. 4:805-809(1985).
DR EMBL: X02518; CAA26355.1; -.
FT NON_TER 9 9
SQ SEQUENCE 9 AA; 1087 MW; 99ED005DC404405A CRC64;

Query Match 31.1%; Score 14; DB 1; Length 9;
Best Local Similarity 66.7%; Pred. No. 8.3e+05;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 6 DLN 8

Db |:
2 DIN 4

RESULT 11

Q16220 PRELIMINARY; PRT; 9 AA.
AC Q16220;
DT 01-NOV-1996 (TrEMBLrel. 01, Created)
DT 01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT 01-MAY-1999 (TrEMBLrel. 10, Last annotation update)
DE HGRP protein (Fragment).
GN HGRP.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=94320083; PubMed=8044796;
RA Nagalla S.R., Spindel E.R.;
RT "Functional analysis of the 5'-flanking region of the human gastrin-releasing peptide gene in small cell lung carcinoma cell lines.";
RL Cancer Res. 54:4461-4467(1994).
DR EMBL; S73265; AAD14116.1; -.
FT NON_TER 9
SQ SEQUENCE 9 AA; 1070 MW; 77FE37672B040864 CRC64;

Query Match 31.1%; Score 14; DB 4; Length 9;
Best Local Similarity 37.5%; Pred. No. 8.3e+05;
Matches 3; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

QY 2 LSGADLNL 9
: |:
Db 1 MRGREPL 8

RESULT 12

O95953 PRELIMINARY; PRT; 9 AA.
AC O95953;
DT 01-MAY-1999 (TrEMBLrel. 10, Created)
DT 01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
DT 01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
DE Galactocerebrosidase (EC 3.2.1.46) (Fragment).
GN GALT.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Brain;
RA Lulli L., Torchiana E., Finocchiaro G.;
RL Submitted (NOV-1996) to the EMBL/GenBank/DBJ databases.
DR EMBL; U77631; AAD15626.1; -.
KW Glycosidase; Hydrolase.
FT NON_TER 9
SQ SEQUENCE 9 AA; 1069 MW; 374E2AADC2C699C8 CRC64;

Query Match 31.1%; Score 14; DB 4; Length 9;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 5 ADL 7
|:
Db 6 ADL 8

RESULT 13

Q9TRS0 PRELIMINARY; PRT; 9 AA.
ID Q9TRS0
AC Q9TRS0;

DT 01-MAY-2000 (TrEMBLrel. 13, Created)
DT 01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT 01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DE Calcyclin-associated protein, CAP50=CA2+/phospholipid-binding protein
DE L-7 fragment (Fragment).
OS Oryctolagus cuniculus (Rabbit).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
OX NCBI_TaxID=9986;
RN [1]
RP SEQUENCE.
RX MEDLINE=92250478; PubMed=1533622;
RA Tokumitsu H., Mizutani A., Minami H., Kobayashi R., Hidaka H.;
RT "A calcyclin-associated protein is a newly identified member of the Ca2+/phospholipid-binding proteins, annexin family.";
RL J. Biol. Chem. 267:8919-8924(1992).
FT NON_TER 1
FT NON_TER 1
SQ SEQUENCE 9 AA; 1010 MW; 64E419C44865B72B CRC64;

Query Match 31.1%; Score 14; DB 6; Length 9;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 2 LSG 4
|:
Db 3 LSG 5

RESULT 14

O35953 PRELIMINARY; PRT; 9 AA.
ID O35953;
AC O35953;
DT 01-JAN-1998 (TrEMBLrel. 05, Created)
DT 01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
DT 01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE Truncated voltage-gated sodium channel alpha subunit (Fragment).
GN SCN8A.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=R111;
RX MEDLINE=97442476; PubMed=9295353;
RA Plummer N.W., McBurney M.W., Weisler M.H.;
RT "Alternative splicing of the sodium channel SCN8A predicts a truncated two-domain protein in fetal brain and non-neuronal cells.";
RL J. Biol. Chem. 272:24008-24015(1997).
DR EMBL; U97672; AAB80914.1; -.
DR MGD; MGI:103169; Scn8a.
KW Ionic channel.
FT NON_TER 1
SQ SEQUENCE 9 AA; 898 MW; 22D92865B735B737 CRC64;

Query Match 31.1%; Score 14; DB 11; Length 9;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 2 LSG 4
|:
Db 5 LSG 7

RESULT 15

Q8KMS3 PRELIMINARY; PRT; 7 AA.
ID Q8KMS3;
AC Q8KMS3;
DT 01-OCT-2002 (TrEMBLrel. 22, Created)
DT 01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT 01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DE Putative MerR2 protein.

GN MERR2.
OS Klebsiella sp. LS13-39.
OC Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC Enterobacteriaceae; Klebsiella.
OX NCBI_TaxID=143776;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=LS13-39;
RX MEDLINE=21604134; PubMed=11763242;
RA Mindlin S.Z., Kholodii G.Y., Gorlenko Z.M., Minakhina S.V.,
RA Minakhin L.S., Kalyaeva E.S., Kopteva A.V., Petrova M.A.,
RA Yurleva O.V., Nikiforov V.G.;
RT "Mercury resistance transposons of Gram-negative environmental
bacteria and their classification."
RL Res. Microbiol. 152:811-822(2001).
DR EMBL; AJ302776; CAC82975.1; -
SQ SEQUENCE 7 AA; 608 MW; 6DC1B5BDD87DD6F0 CRC64;

Query Match 28.9%; Score 13; DB 2; Length 7;
Best Local Similarity 50.0%; Pred. No. 8.3e+05;
Matches 2; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
QY 2 LSGA 5
::|||
Db 1 MAGA 4

Search completed: January 12, 2004, 14:30:59
Job time : 27.75 secs

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OM protein - protein search, using sw model

Run on: January 12, 2004, 14:25:20 ; Search time 10.25 Seconds
(without alignments)
84.441 Million cell updates/sec

Title: US-09-529-121A-3
Perfect score: 45
Sequence: 1 YLSGADINL 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283308 segs, 96168682 residues

Total number of hits satisfying chosen parameters: 789

Minimum DB seq length: 0
Maximum DB seq length: 9

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database :
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	length	DB	ID	Description
1	16	35.6	7	2	PT0542	T-cell receptor be
2	16	35.6	8	2	A21440	variant surface gl
3	16	35.6	8	2	JS0318	leucokinin VIII -
4	16	35.6	9	2	A61364	isotocin - common
5	16	35.6	9	4	I57650	hemoglobin alpha c
6	15	33.3	5	2	PT0540	T-cell receptor be
7	15	33.3	6	2	PT0726	T-cell receptor be
8	15	33.3	7	2	PT0526	T-cell receptor be
9	15	33.3	7	2	PT0676	T-cell receptor be
10	15	33.3	8	2	T13818	cytochrome oxidase
11	15	33.3	9	2	F41978	callifMRamide 6 -
12	15	33.3	9	2	PT0288	Ig heavy chain CRD
13	15	33.3	9	2	G41946	T-cell receptor ga
14	14	31.1	5	2	PT0679	T-cell receptor be
15	14	31.1	6	2	PT0605	T-cell receptor be
16	14	31.1	6	2	PT0593	T-cell receptor be
17	14	31.1	7	2	PT0654	T-cell receptor be
18	14	31.1	7	2	PT0722	T-cell receptor be
19	14	31.1	7	2	PC2370	probable H+-transp
20	14	31.1	8	2	S65647	2-hydroxyglutaryl-
21	14	31.1	8	2	PN0043	phosphatidylethano
22	14	31.1	8	2	PT0557	T-cell receptor be
23	14	31.1	9	1	AKLOIM	locustamyoinhibiti
24	14	31.1	9	2	A57444	neuropeptide Grb-A
25	14	31.1	9	2	B57444	neuropeptide Grb-A
26	14	31.1	9	2	C57444	neuropeptide Grb-A
27	14	31.1	9	2	PT0268	Ig heavy chain CRD
28	13	28.9	4	2	G43959	Ig mu chain V regi
29	13	28.9	7	2	I50210	gene c-rel protein

30	13	28.9	7	2	A58718	carnocin UI49 - Ca
31	13	28.9	8	2	A41117	acetylcholinestera
32	13	28.9	8	2	PT0547	T-cell receptor be
33	13	28.9	9	2	QDRB	delta sleep-induci
34	13	28.9	9	2	C41170	photosystem II pro
35	13	28.9	9	2	A61386	macrophage inhibit
36	13	28.9	9	2	PH0935	T-cell receptor be
37	13	28.9	9	2	PH0918	T-cell receptor be
38	12	26.7	4	2	A26209	protein-glutamine
39	12	26.7	5	2	S62883	seminal plasma pro
40	12	26.7	6	2	I51434	H4 histone - Afric
41	12	26.7	7	2	S16364	opacity protein P.
42	12	26.7	7	2	B35890	RNA-directed DNA p
43	12	26.7	7	2	S20446	elastase - Pseudom
44	12	26.7	7	2	A34818	vicillin 72K chain
45	12	26.7	7	2	S29735	polyphosphate-gluc

ALIGNMENTS

RESULT 1
PT0542
T-cell receptor beta chain V-D-J region (126-1BA) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C;Accession: PT0542
R;Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A;Reference number: PT0509; MUID:91277601; PMID:1711558
A;Accession: PT0542
A;Status: translation not shown
A;Molecule type: mRNA
A;Residues: 1-7 <FEE>
A;Experimental source: day 18 fetal thymus, strain BALB/c
C;Keywords: T-cell receptor

Query Match 35.6%; Score 16; DB 2; Length 7;
Best Local Similarity 75.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 3 SGAD 6
Db 2 SGAD 5

RESULT 2
A21440
variant surface glycoprotein pSLc1 - Trypanosoma brucei (fragment)
C;Species: Trypanosoma brucei
C;Date: 19-Nov-1988 #sequence_revision 19-Nov-1988 #text_change 20-Mar-1998
C;Accession: A21440
R;Parsons, M.; Nelson, R.G.; Watkins, K.P.; Agabian, N.
Cell 38, 309-316, 1984
A;Title: Trypanosome mRNAs share a common 5' spliced leader sequence.
A;Reference number: A90853; MUID:84282716; PMID:6088073
A;Accession: A21440
A;Molecule type: mRNA
A;Residues: 1-8 <PAR>
A;Cross-references: GB:K02195; NID:gl62150; PID:gl62151
C;Keywords: glycoprotein

Query Match 35.6%; Score 16; DB 2; Length 8;
Best Local Similarity 33.3%; Pred. No. 2.8e+05;
Matches 2; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

QY 2 LSGADI 7
Db 1 MSGKEV 6

RESULT 3

JS0318
leucokinin VIII - Madeira cockroach
C/Species: Leucophaea maderae (Madeira cockroach)
C/Date: 07-Sep-1990 #sequence_revision 07-Sep-1990 #text_change 20-Jun-2000
C/Accession: JS0318
R/Holman, G.M.; Cook, B.J.; Nachman, R.J.
Comp. Biochem. Physiol. C 88, 31-34, 1987
A/Title: Isolation, primary structure and synthesis of leucokinins VII and VIII: the first
A/Reference number: JS0317
A/Accession: JS0318
A/Molecule type: protein
A/Residues: 1-8 <HOL>
C/Comment: Leucokinins, a family of cephalomyotropic peptides, stimulate contractile act
C/Keywords: amidated carboxyl end; cephalomyotropic peptide
F/8/Modified site: amidated carboxyl end (Gly) #status experimental

Query Match 35.6%; Score 16; DB 2; Length 8;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 4 GAD 6
 |||
Db 1 GAD 3

RESULT 4
A61364
Isotocin - common carp
C/Species: Cyprinus carpio (common carp)
C/Date: 09-Sep-1994 #sequence_revision 09-Sep-1994 #text_change 20-Jun-2000
C/Accession: A61364
R/Acher, R.; Chauvet, J.; Chauvet, M.T.; Crepy, D.
Comp. Biochem. Physiol. A 14, 245-254, 1965
A/Title: Caracterisation des hormones neurohypophysaires d'un poisson osseux d'eau douce
A/Reference number: A61364
A/Accession: A61364
A/Status: preliminary
A/Molecule type: protein
A/Residues: 1-9 <ACH>
C/Superfamily: oxytocin-neurophysin
C/Keywords: amidated carboxyl end; neuropeptide; posterior pituitary
F/9/Modified site: amidated carboxyl end (Gly) #status experimental

Query Match 35.6%; Score 16; DB 2; Length 9;
Best Local Similarity 42.9%; Pred. No. 2.8e+05;
Matches 3; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 YLGGADI 7
 |||
Db 2 YISNCP1 8

RESULT 5
I57650
hemoglobin alpha chain - human (fragment)
C/Species: Homo sapiens (man)
C/Date: 02-Jul-1996 #sequence_revision 31-Jul-1997 #text_change 20-Apr-2000
C/Accession: I57650
R/Whitelaw, E.; Hogben, P.; Hanscombe, O.; Proudfoot, N.J.
Mol. Cell. Biol. 9, 241-251, 1989
A/Title: Transcriptional promiscuity of the human alpha-globin gene.
A/Reference number: I57650; MUID:89181576; PMID:2538719
A/Accession: I57650
A/Status: translated from GB/EMBL/DBJ
A/Molecule type: DNA
A/Residues: 1-9 <WHI>
A/Cross-references: GB:M23454; NID:G340922; PIDN:AAA52629.1; PID:G553329
C/Note: engineered sequence; this sequence was not determined in this report
C/Genetics:
A/Gene: GDB:HBA1
A/Cross-references: GDB:119293
A/Map position: 16p13.3-16p13.3

Query Match 35.6%; Score 16; DB 4; Length 9;
Best Local Similarity 80.0%; Pred. No. 2.8e+05;
Matches 4; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 2 LSGAD 6
 |||
Db 3 LSPAD 7

RESULT 6
PT0540
T-cell receptor beta chain V-D-J region (126-1L) - mouse (fragment)
C/Species: Mus musculus (house mouse)
C/Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C/Accession: PT0540
R/Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A/Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A/Reference number: PT0509; MUID:91277601; PMID:1711558
A/Accession: PT0540
A/Status: translation not shown
A/Molecule type: mRNA
A/Residues: 1-5 <FEE>
A/Experimental source: day 18 fetal thymus, strain BALB/c
C/Keywords: T-cell receptor

Query Match 33.3%; Score 15; DB 2; Length 5;
Best Local Similarity 75.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 3 SGAD 6
 |||
Db 2 SGED 5

RESULT 7
PT0726
T-cell receptor beta chain V-D-J region (161-2D) - mouse (fragment)
C/Species: Mus musculus (house mouse)
C/Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C/Accession: PT0726
R/Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A/Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A/Reference number: PT0509; MUID:91277601; PMID:1711558
A/Accession: PT0726
A/Status: translation not shown
A/Molecule type: DNA
A/Residues: 1-6 <FEE>
A/Experimental source: newborn thymus, strain BALB/c
C/Keywords: T-cell receptor

Query Match 33.3%; Score 15; DB 2; Length 6;
Best Local Similarity 75.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 3 SGAD 6
 |||
Db 2 SGED 5

RESULT 8
PT0526
T-cell receptor beta chain V-D-J region (100-4E) - mouse (fragment)
C/Species: Mus musculus (house mouse)
C/Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C/Accession: PT0526
R/Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A/Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A/Reference number: PT0509; MUID:91277601; PMID:1711558
A/Accession: PT0526
A/Status: translation not shown

A/Molecule type: mRNA
A/Residues: 1-7 <FEE>
A/Experimental source: adult thymus, strain BALB/c
C/Keywords: T-cell receptor

Query Match 33.3%; Score 15; DB 2; Length 7;
Best Local Similarity 75.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 3 SGAD 6
|||
Db 2 SGED 5

RESULT 9
PT0676
T-cell receptor beta chain V-D-J region (140-1AL) - mouse (fragment)
C/Species: Mus musculus (house mouse)
C/Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C/Accession: PT0676
R/Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A/Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A/Reference number: PT0509; MUID:91277601; PMID:1711558
A/Accession: PT0676
A/Status: translation not shown
A/Molecule type: DNA
A/Residues: 1-7 <FEE>
A/Experimental source: day 18 fetal thymus, strain BALB/c
C/Keywords: T-cell receptor

Query Match 33.3%; Score 15; DB 2; Length 7;
Best Local Similarity 75.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 3 SGAD 6
|||
Db 2 SGED 5

RESULT 10
T13818
cytochrome oxidase subunit I - Atlantic hagfish mitochondrion (fragment)
C/Species: mitochondrion Myxine glutinosa (Atlantic hagfish)
C/Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text_change 21-Jul-2000
C/Accession: T13818
R/Delarbre, C.; Barriol, V.; Tillier, S.; Janvier, P.; Gachelin, G.
Mol. Biol. Evol. 14, 807-813, 1997
A/Title: The main features of the craniate mitochondrial DNA between the ND1 and the COI
A/Reference number: Z17775; MUID:97398704; PMID:9254918
A/Accession: T13818
A/Status: preliminary; translated from GB/EMBL/DBJ
A/Molecule type: DNA
A/Residues: 1-8
A/Cross-references: EMBL:Y09527; NID:G2340019; PIDN:CAA70718.1; PID:G2340022
C/Genetics:
A/Genome: mitochondrion
A/Note: COI
C/Keywords: mitochondrion

Query Match 33.3%; Score 15; DB 2; Length 8;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLS 3
|||
Db 2 YLS 4

RESULT 11
F41978
calliFMRamide 6 - bluebottle fly (Calliphora vomitoria)
C/Species: Calliphora vomitoria

C/Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 17-Mar-1999
C/Accession: F41978
R/Duve, H.; Johnsen, A.H.; Sewell, J.C.; Scott, A.G.; Orchard, I.; Rehfeld, J.F.; Thorpe, Proc. Natl. Acad. Sci. U.S.A. 89, 2326-2330, 1992
A/Title: Isolation, structure, and activity of -Phe-Met-Arg-Phe-NH-2 neuropeptides (desig
A/Reference number: A41978; MUID:92196111; PMID:1549595
A/Accession: F41978
A/Status: preliminary
A/Molecule type: protein
A/Residues: 1-9 <DUV>
C/Keywords: amidated carboxyl end; neuropeptide
F;9/Modified site: amidated carboxyl end (Phe) #status experimental

Query Match 33.3%; Score 15; DB 2; Length 9;
Best Local Similarity 75.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 3 SGAD 6
|||
Db 2 SGED 5

RESULT 12
PT0288
Ig heavy chain CRD3 region (clone 4-106) - human (fragment)
C/Species: Homo sapiens (man)
C/Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Aug-1996
C/Accession: PT0288
R/Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A/Title: Preferential utilization of specific immunoglobulin heavy chain diversity and jc
A/Reference number: PT0222; MUID:91108337; PMID:1899102
A/Accession: PT0288
A/Molecule type: DNA
A/Residues: 1-9 <YAM>
A/Experimental source: B lymphocyte
C/Keywords: heterotetramer; immunoglobulin

Query Match 33.3%; Score 15; DB 2; Length 9;
Best Local Similarity 75.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 YLSG 4
|||
Db 5 YSSG 8

RESULT 13
G41946
T-cell receptor gamma chain (2c.23) - mouse (fragment)
C/Species: Mus musculus (house mouse)
C/Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 07-May-1999
R/Whetsell, M.; Mosley, R.L.; Whetsell, L.; Schaefer, F.V.; Miller, K.S.; Klein, J.R.
Mol. Cell. Biol. 11, 5902-5909, 1991
A/Title: Rearrangement and junctional-site sequence analyses of T-cell receptor gamma ger
A/Reference number: A41946; MUID:92049316; PMID:1658619
A/Accession: G41946
A/Status: preliminary; not compared with conceptual translation
A/Molecule type: DNA
A/Residues: 1-9 <WHE>
C/Keywords: T-cell receptor

Query Match 33.3%; Score 15; DB 2; Length 9;
Best Local Similarity 75.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 YLSG 4
|||
Db 5 YSSG 8

RESULT 14

PT0679
T-cell receptor beta chain V-D-J region - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C;Accession: PT0679; PT0708
R;Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A;Reference number: PT0509; MUID:91277601; PMID:1711558
A;Accession: PT0679
A;Status: translation not shown
A;Molecule type: DNA
A;Residues: 1-5 <FEE>
A;Experimental source: day 18 fetal thymus, strain BALB/c, 154-2J
A;Accession: PT0708
A;Status: translation not shown
A;Molecule type: DNA
A;Residues: 1-5 <FE2>
A;Experimental source: newborn thymus, strain BALB/c, 161-2B
C;Keywords: T-cell receptor

Query Match 31.1%; Score 14; DB 2; Length 5;
Best Local Similarity 75.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 3 SGAD 6
Db 2 SGDD 5

RESULT 15

PT0605
T-cell receptor beta chain V-D-J region (120-1L) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C;Accession: PT0605
R;Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A;Reference number: PT0509; MUID:91277601; PMID:1711558
A;Accession: PT0605
A;Status: translation not shown
A;Molecule type: mRNA
A;Residues: 1-6 <FEE>
A;Experimental source: newborn thymus, strain BALB/c
C;Keywords: T-cell receptor

Query Match 31.1%; Score 14; DB 2; Length 6;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 3 SGA 5
Db 2 SGA 4

Search completed: January 12, 2004, 14:31:52
Job time : 10.25 secs

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OM protein - protein search, using sw model

Run on: January 12, 2004, 14:21:34 ; Search time 6.25 Seconds
(without alignments)
67.718 Million cell updates/sec

Title: US-09-529-121A-3
Perfect score: 45
Sequence: 1 YLSGADINL 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 127863 seqs, 47026705 residues

Total number of hits satisfying chosen parameters: 251

Minimum DB seq length: 0
Maximum DB seq length: 9

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SwissProt_41:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	17	37.8	8	1	CPD1_ENTFA	P13269 enterococcu
2	16	35.6	8	1	LCK8_LEUMA	P19990 leucophaea
3	16	35.6	9	1	ISOT_CYPCA	P42993 cyprinus ca
4	15	33.3	8	1	PLP_BRANA	P81707 brassica na
5	15	33.3	9	1	FAR6_CALVO	P41861 calliphora
6	14	31.1	8	1	ALL5_CYPDPO	P82156 cydia pomon
7	14	31.1	9	1	LMIP_LOCM1	P31799 locusta mig
8	14	31.1	9	1	PTSP_BOMMO	P82003 bombyx mori
9	13	28.9	7	1	LANC_CARUI	P36960 carnobacter
10	13	28.9	8	1	FAR2_MACRS	P83275 macrobrachi
11	13	28.9	9	1	DSIP_RABIT	P01158 oryctolagus
12	13	28.9	9	1	FAR2_PANRE	P41873 panagrellus
13	13	28.9	9	1	OXYT_RAJCL	P42994 raja clavac
14	12	26.7	8	1	ACT_CARMA	P80709 carcinus ma
15	12	26.7	8	1	CCKN_MACEU	P30369 macropus eu
16	12	26.7	9	1	FARD_CALVO	P41868 calliphora
17	12	26.7	9	1	OXYA_SCYCA	P42996 scylliorhinu
18	12	26.7	9	1	OXYT_BUERE	P42995 bufo regula
19	12	26.7	9	1	PGIR_DIAAB	P81179 diatrepes a
20	12	26.7	9	1	UPA6_HUMAN	P30092 homo sapien
21	11	24.4	4	1	FAR3_HIRME	P42562 hirtudo medi
22	11	24.4	5	1	PRCT_PERAM	P01373 periplaneta
23	11	24.4	7	1	FAR2_ASCSU	P31890 ascaris suu
24	11	24.4	7	1	GFRP_MOUSE	P99025 mus musculu
25	11	24.4	8	1	CADI_ENTFA	P13268 enterococcu
26	11	24.4	8	1	FAR8_CALVO	P41863 calliphora
27	11	24.4	9	1	DI_NEBNO	P24816 nephrops no
28	11	24.4	9	1	FAR5_CALVO	P41860 calliphora
29	11	24.4	9	1	FAR7_CALVO	P41862 calliphora
30	11	24.4	9	1	MOSF_CLYJA	P19853 clypeaster
31	11	24.4	9	1	OXYA_SQUAC	P42999 squalus aca
32	11	24.4	9	1	OXYV_SQUAC	P43000 squalus aca
33	10	22.2	4	1	ACH1_ACHFU	P35904 achatina fu

34	10	22.2	5	1	UXA4_CHLTR	P38005 chlamydia t
35	10	22.2	6	1	CIP2_MYTED	P13737 mytilus edu
36	10	22.2	6	1	TMOF_SARBU	P41495 sarcophaga
37	10	22.2	6	1	UN06_CLOPA	P81351 clostridium
38	10	22.2	7	1	ALL2_CARMA	P81805 carcinus ma
39	10	22.2	7	1	ALL3_CARMA	P81806 carcinus ma
40	10	22.2	7	1	ALL4_CARMA	P81807 carcinus ma
41	10	22.2	7	1	ALL5_CARMA	P81808 carcinus ma
42	10	22.2	7	1	ALL7_CYPDPO	P82158 cydia pomon
43	10	22.2	7	1	PPH2_LYCES	P83379 lycopersico
44	10	22.2	7	1	UN06_PINPS	P81675 pinus pinas
45	10	22.2	8	1	AL12_CARMA	P81815 carcinus ma

ALIGNMENTS

RESULT 1
CPD1_ENTFA
ID CPD1_ENTFA STANDARD; PRT; 8 AA.
AC P13269;
DT 01-JAN-1990 (Rel. 13, Created)
DT 01-JAN-1990 (Rel. 13, Last sequence update)
DT 01-FEB-1991 (Rel. 17, Last annotation update)
DE Sex pheromone CPD1.
OS Enterococcus faecalis (Streptococcus faecalis).
OC Bacteria; Firmicutes; Lactobacillales; Enterococcaceae; Enterococcus.
OX NCBI_TaxID=1351;
RN [1]
RP SEQUENCE.
RX MEDLINE=85040388; PubMed=6436978;
RA Suzuki A., Mori M., Sagakami Y., Isogai A., Fujino M., Kitada C.,
RA Craig R.A., Clewell D.B.;
RT "Isolation and structure of bacterial sex pheromone, CPD1.";
RL Science 226:849-850(1984).
CC -1- FUNCTION: CPD1 IS INVOLVED IN THE CONJUGATIVE TRANSFER OF THE
CC BACTERIOCIN PLASMID PPD1.
KW Pheromone.
SQ SEQUENCE 8 AA; 913 MW; 8665B729C682C729 CRC64;

Query Match 37.8%; Score 17; DB 1; Length 8;
Best Local Similarity 75.0%; Pred. No. 1.3e+05;
Matches 3; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLSG 4
Db 5 FLSG 8

RESULT 2
LCK8_LEUMA
ID LCK8_LEUMA STANDARD; PRT; 8 AA.
AC P19990;
DT 01-FEB-1991 (Rel. 17, Created)
DT 01-FEB-1991 (Rel. 17, Last sequence update)
DT 01-FEB-1991 (Rel. 17, Last annotation update)
DE Leucokinin VIII (L-VIII).
OS Leucophaea maderae (Madeira cockroach).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blaberoidea;
OC Blaberidae; Leucophaea.
OX NCBI_TaxID=6988;
RN [1]
RP SEQUENCE.
RC TISSUE=Head;
RA Holman G.M., Cook B.J., Nachman R.J.;
RT "Isolation, primary structure and synthesis of leucokinin VII and
RT VIII: the final members of this new family of cephalomyotropic
RT peptides isolated from head extracts of Leucophaea maderae.";
RL Comp. Biochem. Physiol. 88C:31-34(1987).
CC -1- FUNCTION: THIS CEPHALOMYOTROPIC PEPTIDE STIMULATES CONTRACTILE
CC ACTIVITY OF COCKROACH PROTODEUM (HINDGUT).
CC -1- SIMILARITY: TO THE OTHER LEUCOKININS.

DR PIR; JS0318; JS0318.
KW Neuropeptide; Amidation.
FT MOD RES 8
SQ SEQUENCE 8 AA; 902 MW; 736365AB59CAADD8 CRC64;

Query Match 35.6%; Score 16; DB 1; Length 8;
Best Local Similarity 100.0%; Pred. No. 1.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 4 GAD 6
Db 1 GAD 3

RESULT 3
ISOT_CYPCA STANDARD; PRT; 9 AA.
ID ISOT_CYPCA
AC P42953;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-NOV-1995 (Rel. 32, Last annotation update)
DE Isotocin.
OS Cyprinus carpio (Common carp).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
OC Cyprinidae; Cyprinus.
OX NCBI_TaxID=7962;
RN [1]

RP SEQUENCE.
RC TISSUE=Plutitary;
RA Acher R., Chauvet J., Chauvet M.-T., Crepy D.;
RT "Characterization of neurohypophyseal hormones from a fresh water bony fish, the carp (Cyprinus carpio). Comparison with hormones from sea water bony fishes."
RT water bony fishes."
RL Comp. Biochem. Physiol. 14:245-254(1965).
CC -1- FUNCTION: ANTIDIURETIC HORMONE.
CC -1- SIMILARITY: BELONGS TO THE VASOPRESSIN/OXYTOCIN FAMILY.

DR PIR; A61364; A61364.
DR InterPro; IPR000981; Neurohyp_horm.
DR Pfam; PF00220; hormone4; 1.
DR PROSITE; PS00264; NEUROHYPOPHYS_HORM; 1.
KW Hormone; Amidation.
FT DISULFID 1 6
FT MOD RES 9 9
SQ SEQUENCE 9 AA; 969 MW; 17FF476EB455B04B CRC64;

Query Match 35.6%; Score 16; DB 1; Length 9;
Best Local Similarity 42.9%; Pred. No. 1.3e+05;
Matches 3; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 YLSGADI 7
Db 2 YISNCPI 8

RESULT 4
PLP_BRANA STANDARD; PRT; 8 AA.
ID PLP_BRANA
AC P81707;
DT 15-JUL-1999 (Rel. 38, Created)
DT 15-JUL-1999 (Rel. 38, Last sequence update)
DT 30-MAY-2000 (Rel. 39, Last annotation update)
DE Placidal lipid-associated protein (Fragment).
OS Brassica napus (Rape).
OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae;
OC euroids II; Brassicales; Brassicaceae; Brassica.
OX NCBI_TaxID=3708;
RN [1]

RP SEQUENCE.
RC STRAIN=CV. TOPAZ; TISSUE=Tapetum;
RX MEDLINE=99349136; PubMed=10420651;
RA Hernandez-Pinzon I., Ross J.H.E., Barnes K.A., Damant A.P.,

RA Murphy D.J.;
RT "Composition and role of tapetal lipid bodies in the biogenesis of the pollen coat of Brassica napus."
RL Planta 208:588-598(1999).
CC -1- FUNCTION: MAY PLAY A STRUCTURAL ROLE IN THE ELAIOPLAST, A TAPETUM-SPECIFIC PLASTIDIAL LIPID ORGANELLE.
CC -1- TISSUE SPECIFICITY: TAPETUM OF ANTHERS.
FT NON TER 8 8
SQ SEQUENCE 8 AA; 989 MW; 9D7B1AA452CAA042 CRC64;

Query Match 33.3%; Score 15; DB 1; Length 8;
Best Local Similarity 66.7%; Pred. No. 1.3e+05;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 6 DIN 8
Db 3 DVN 5

RESULT 5
FAR6_CALVO STANDARD; PRT; 9 AA.
ID FAR6_CALVO
AC P41861;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-NOV-1995 (Rel. 32, Last annotation update)
DE CallifMRamide 6.
OS Calliphora vomitoria (Blue blowfly).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC Calliphoridae; Calliphora.
OX NCBI_TaxID=27454;
RN [1]

RP SEQUENCE.
RC TISSUE=Thoracic ganglion;
RX MEDLINE=92196111; PubMed=1549595;
RA Duve H., Johnsen A.H., Sewell J.C., Scott A.G., Orchard I., Rehfeld J.F., Thorpe A.;
RT "Isolation, structure, and activity of -Phe-Met-Arg-Phe-NH2 neuropeptides (designated callifMRamides) from the blowfly Calliphora vomitoria."
RT Proc. Natl. Acad. Sci. U.S.A. 89:2326-2330(1992).
RL -1- SIMILARITY: BELONGS TO THE FARP (FMRFAMIDE RELATED PEPTIDE) FAMILY.
CC CC
DR PIR; F41978; F41978.
KW Neuropeptide; Amidation.
FT MOD RES 9 9
SQ SEQUENCE 9 AA; 1058 MW; 96D10699CAB6D865 CRC64;

Query Match 33.3%; Score 15; DB 1; Length 9;
Best Local Similarity 75.0%; Pred. No. 1.3e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 3 SGAD 6
Db 2 SGQD 5

RESULT 6
ALL5_CYPDPO STANDARD; PRT; 8 AA.
ID ALL5_CYPDPO
AC P82156;
DT 30-MAY-2000 (Rel. 39, Created)
DT 30-MAY-2000 (Rel. 39, Last sequence update)
DT 30-MAY-2000 (Rel. 39, Last annotation update)
DE Cydia pomonella (Coddling moth).
OS Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia;
OC Tortricoidae; Tortricidae; Olethreutinae; Cydia.
OX NCBI_TaxID=82600;
RN [1]

RP SEQUENCE.

RC TISSUE=Larva;
RX MEDLINE=98054539; PubMed=9392829;
RA Dave H., Johnsen A.H., Maestro J.-L., Scott A.G., Winstanley D.,
RA Davey M., East P.D., Thorpe A.;
RT "Lepidopteran peptides of the allatostatin superfamily."
RL Peptides 18:1301-1309(1997).
CC -I- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
KW Neuropeptide; Amidation.
FT MOD RES 8
SQ SEQUENCE 8 AA; 898 MW; 922879CABB58640D CRC64;

Query Match 31.1%; Score 14; DB 1; Length 8;
Best Local Similarity 50.0%; Pred. No. 1.3e+05;
Matches 3; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

QY 4 GADINL 9
|:|
Db 3 GYDFGL 8

RESULT 7
LMIP LOCMI STANDARD; PRT; 9 AA.
ID LMIP LOCMI
AC P31799;
DT 01-JUL-1993 (Rel. 26, Created)
DT 01-JUL-1993 (Rel. 26, Last sequence update)
DT 01-OCT-1993 (Rel. 27, Last annotation update)
DE Locustamyoinhibiting peptide (LOM-MIP).
OS Locusta migratoria (Migratory locust).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Orthopteroidea; Orthoptera; Caelifera; Acridomorpha;
OC Acridoidea; Acrididae; Oedipodinae; Locusta.
OX NCBI_TaxID=7004;
RN [1]
RP SEQUENCE.
RX MEDLINE=92179466; PubMed=1796179;
RA Schoofs L., Holman G.M., Hayes T.K., Nachman R.J., de Loof A.;
RT "Isolation, identification and synthesis of locustamyoinhibiting
RT peptide (LOM-MIP), a novel biologically active neuropeptide from
RT Locusta migratoria."
RL Regul. Pept. 36:111-119(1991).
CC -I- FUNCTION: SUPPRESSES SPONTANEOUS CONTRACTIONS OF THE HINDGUT AND
CC OVIDUCT.
CC -I- TISSUE SPECIFICITY: NEURONS LOCATED IN TWO VENTRAL CELL CLUSTERS
CC IN THE SUBESOPHAGEAL GANGLION.
DR PIR; A60065; AKLQIM.
KW Amidation; Neuropeptide.
FT MOD RES 9
SQ SEQUENCE 9 AA; 1060 MW; 387D7DD4472AB6C3 CRC64;

Query Match 31.1%; Score 14; DB 1; Length 9;
Best Local Similarity 66.7%; Pred. No. 1.3e+05;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 6 DIN 8
|:|
Db 4 DLN 6

RESULT 8
PTSP_BOMMO STANDARD; PRT; 9 AA.
ID PTSP_BOMMO
AC P82003;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Prothoracicostatic peptide (Bom-PTSP).
OS Bombyx mori (Silk moth).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia; Bombycoidea;
OC Bombycidae; Bombyx.
OX NCBI_TaxID=7091;
RN [1]

RP SEQUENCE.
RC STRAIN=C145 X N140; TISSUE=Brain;
RX MEDLINE=20002634; PubMed=10531308;
RA Hua Y.-J., Tanaka Y., Nakamura K., Sakakibara M., Nagata S.,
RA Kataoka H.;
RT "Identification of a prothoracicostatic peptide in the larval brain of
RT the silkworm, Bombyx mori."
RL J. Biol. Chem. 274:31169-31173(1999).
RN [2]
RP ERRATUM.
RA Hua Y.-J., Tanaka Y., Nakamura K., Sakakibara M., Nagata S.,
RA Kataoka H.;
RL J. Biol. Chem. 275:9892-9892(2000).
CC -I- FUNCTION: Inhibits ecdysteroid biosynthesis in the prothoracic
CC gland.
CC -I- SUBCELLULAR LOCATION: Secreted.
CC -I- DEVELOPMENTAL STAGE: EARLY FIFTH INSTAR.
KW Hormone; Amidation.
FT MOD RES 9
SQ SEQUENCE 9 AA; 1090 MW; 3878C5B4472AB6C3 CRC64;

Query Match 31.1%; Score 14; DB 1; Length 9;
Best Local Similarity 66.7%; Pred. No. 1.3e+05;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 6 DIN 8
|:|
Db 4 DLN 6

RESULT 9
LANC_CARUI STANDARD; PRT; 7 AA.
ID LANC_CARUI
AC P36960;
DT 01-JUN-1994 (Rel. 29, Created)
DT 01-JUN-1994 (Rel. 29, Last sequence update)
DT 16-OCT-2001 (Rel. 40, Last annotation update)
DE Lantibiotic carnocin U149 (Fragment).
OS Carnobacterium sp. (strain U149).
OC Bacteria; Firmicutes; Lactobacillales; Carnobacteriaceae;
OC Carnobacterium.
OX NCBI_TaxID=35782;
RN [1]
RP SEQUENCE.
RX MEDLINE=92321768; PubMed=1622206;
RA Stoffels G., Nissen-Meyer J., Gudmundsdottir A., Sletten K., Holo H.,
RA Nes I.F.;
RT "Purification and characterization of a new bacteriocin isolated from
RT a Carnobacterium sp."
RL Appl. Environ. Microbiol. 58:1417-1422(1992).
CC -I- FUNCTION: LANTHIONINE-CONTAINING PEPTIDE ANTIBIOTIC (LANTIBIOTIC).
CC ACTIVE ON GRAM-POSITIVE BACTERIA.
KW Antibiotic; Bacteriocin; Lantibiotic.
FT NON TER 7
SQ SEQUENCE 7 AA; 786 MW; 741776D05B05B810 CRC64;

Query Match 28.9%; Score 13; DB 1; Length 7;
Best Local Similarity 50.0%; Pred. No. 1.3e+05;
Matches 2; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 4 GADI 7
|:|
Db 1 GSEI 4

RESULT 10
FAR2_MACRS STANDARD; PRT; 8 AA.
ID FAR2_MACRS
AC P83275;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE FMRamide-like neuropeptide FLP2 (ADKXFLRF-amide).
RN [1]

OS Macrobrachium rosenbergii (Giant fresh water prawn).
OC Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Caridea;
OC Palaemonoidea; Palaemonidae; Macrobrachium.
OX NCBI_TaxID=79674;
RN [1]
RP SEQUENCE, AND MASS SPECTROMETRY.
RC TISSUE=Eyestalk;
RA Sithigorngul P., Saraihongkum W., Jaidechoey S., Longyant S.,
RA Sithigorngul W.;
RT "Novel FMRFamide-like neuropeptides from the eyestalk of the giant
freshwater prawn Macrobrachium rosenbergii.";
RL Comp. Biochem. Physiol. 120B:587-595(1998).
CC -1- MASS SPECTROMETRY: MW=1009.4; METHOD=MALDI.
CC -1- SIMILARITY: BELONGS TO THE FARP (FMRFAMIDE RELATED PEPTIDE)
CC FAMILY.
DR GO: GO:0007218; P:neuropeptide signaling pathway; TAS.
KW Neuropeptide; Amidation.
FT MOD_RES 8
SQ SEQUENCE 8 AA; 1010 MW; 9CDA0729C4433AAD CRC64;

Query Match 28.9%; Score 13; DB 1; Length 8;
Best Local Similarity 75.0%; Pred. No. 1.3e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 5 ADIN 8
Db 1 ADKN 4

RESULT 11
DSIP_RABIT STANDARD; PRT; 9 AA.
ID DSIP_RABIT
AC P01158;
DT 21-JUL-1986 (Rel. 01, Created)
DT 21-JUL-1986 (Rel. 01, Last sequence update)
DT 16-OCT-2001 (Rel. 40, Last annotation update)
DE Delta sleep-inducing peptide (DSIP).
OS Oryctolagus cuniculus (Rabbit).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
OX NCBI_TaxID=9986;
RN [1]
RP SEQUENCE.
RX MEDLINE=77185324; PubMed=862769;
RA Monnier M., Dudler L., Gachter R., Maier P.F., Tobler H.J.,
RA Schoenenberger G.A.;
RT "The delta sleep inducing peptide (DSIP). Comparative properties of
the original and synthetic nonapeptide.";
RL Experientia 33:548-552(1977).
RN [2]
RP SEQUENCE, AND SYNTHESIS.
RX MEDLINE=79054421; PubMed=568769;
RA Schoenenberger G.A., Maier P.F., Tobler H.J., Wilson K., Monnier M.;
RT "The delta EEG (sleep)-inducing peptide (DSIP). XI. Amino-acid
analysis, sequence, synthesis and activity of the nonapeptide";
RT Pflugers Arch. 376:119-129(1978).
RL [3]
RN REVIEW.
RX MEDLINE=87175129; PubMed=3550726;
RA Graf M.V., Kastin A.J.;
RT "Delta-sleep-inducing peptide (DSIP): an update.";
RL Peptides 7:1165-1187(1986).
CC -1- FUNCTION: WHEN INFUSED INTO THE MESODIENCEPHALIC VENTRICLE OF
RECIPIENT RABBITS INDUCES SPINDLE AND DELTA EEG ACTIVITY AND
REDUCED MOTOR ACTIVITIES.
CC -1- MISCELLANEOUS: THIS PEPTIDE WAS OBTAINED FROM DIALYSATES OF
OCCIPITAL VENOUS SINUS BLOOD FROM RABBITS KEPT ASLEEP BY ELECTRIC
STIMULATION OF THE THALAMUS.
CC -1- DATABASE: NAME=Protein Spotlight;
CC NOTE=Issue 8 of March 2001;
CC WWW="http://www.expasy.org/spotlight/articles/splt008.html".
DR PIR; A01422; QDRB.

SQ SEQUENCE 9 AA; 849 MW; DDD365BDDAA8787D CRC64;

Query Match 28.9%; Score 13; DB 1; Length 9;
Best Local Similarity 50.0%; Pred. No. 1.3e+05;
Matches 2; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 3 SGAD 6
Db 2 AGGD 5

RESULT 12
FAR2_PANRE STANDARD; PRT; 9 AA.
ID FAR2_PANRE
AC P41873;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-NOV-1995 (Rel. 32, Last annotation update)
DE FMRFamide-like neuropeptide PF2 (SADPNFLRF-amide).
OS Panagrellus redivivus.
OC Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida;
OC Panagrolaimoidea; Panagrolaimidae; Panagrellus.
OX NCBI_TaxID=6233;
RN [1]
RP SEQUENCE.
RX MEDLINE=93027659; PubMed=1408999;
RA Geary T.G., Price D.A., Bowman J.W., Winterrowd C.A., Mackenzie C.D.,
RA Garrison R.D., Williams J.F., Friedman A.R.;
RT "Two FMRFamide-like peptides from the free-living nematode
Panagrellus redivivus";
RT Peptides 13:209-214(1992).
RL Peptides 13:209-214(1992).
CC -1- FUNCTION: MYOACTIVE.
CC -1- TISSUE SPECIFICITY: NERVE CORDS AND PAIRED GROUPS OF CELLS LOCATED
CAUDALLY TO THE BASE OF THE PHARYNX.
CC -1- SIMILARITY: BELONGS TO THE FARP (FMRFAMIDE RELATED PEPTIDE)
CC FAMILY.
KW Neuropeptide; Amidation.
FT MOD_RES 9
SQ SEQUENCE 9 AA; 1066 MW; DA0B0729C4576AAD CRC64;

Query Match 28.9%; Score 13; DB 1; Length 9;
Best Local Similarity 75.0%; Pred. No. 1.3e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 5 ADIN 8
Db 2 ADPN 5

RESULT 13
OXYT_RAJCL STANDARD; PRT; 9 AA.
ID OXYT_RAJCL
AC P42994;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-NOV-1995 (Rel. 32, Last annotation update)
DE Glutitocin.
OS Raja clavata (Thornback ray).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Chondrichthyes;
OC Elasmobranchii; Squala; Hypnosqualea; Pristiogorae; Batoidae;
OC Rajiformes; Rajidae; Raja.
OX NCBI_TaxID=7781;
RN [1]
RP SEQUENCE.
RX MEDLINE=66123415; PubMed=5880565;
RA Acher R., Chauvet J., Chauvet M.-T., Crepy D.;
RT "Phylogeny of neurophyophysal peptides: isolation of a new hormone,
glutitocin (Ser 4-Gln 8-ocytocin) present in a cartilaginous fish,
the ray (Raja clavata).";
RL Biochim. Biophys. Acta 107:393-396(1965).
CC -1- FUNCTION: ANTIDIURETIC HORMONE.
CC -1- SIMILARITY: BELONGS TO THE VASOPRESSIN/OXYTOCIN FAMILY.
DR InterPro; IPR000981; Neutryp_horm.

DR Pfam; PF00220; hormone4; 1.
DR PROSITE; PS00264; NEUROHYPOPHYS_HORM; 1.
KW Hormone; Amidation.
FT DISULFID 1 6
MOD RES 9 9 AMIDATION.
SQ SEQUENCE 9 AA; 984 MW; 17E9C76EB455B04B CRC64;

Query Match 28.9%; Score 13; DB 1; Length 9;
Best Local Similarity 66.7%; Pred. No. 1.3e+05;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLS 3
|:|
Db 2 YIS 4

RESULT 14
ACT_CARMA STANDARD; PRT; 8 AA.
ID ACT_CARMA
AC P80709;
DT 01-OCT-1996 (Rel. 34, Created)
DT 01-OCT-1996 (Rel. 34, Last sequence update)
DT 15-JUL-1999 (Rel. 38, Last annotation update)
DE Actin (Fragment).
OS Carcinus maenas (Common shore crab) (Green crab).
OC Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Brachyura;
OC Eubrachyura; Portunidea; Portunidae; Carcinus.
OX NCBI_TaxID=6759;
RN [1]
RP SEQUENCE.
RA Lachaise F., Somme G., Carpentier G., Granjeon E., Webster S.,
RA Baghdassarian D., An enzyme implicated in crab steroidogenesis."
RT "A transaldolase. An enzyme implicated in crab steroidogenesis."
RL Endocrine 5:23-32(1996).
CC -!- FUNCTION: ACTINS ARE HIGHLY CONSERVED PROTEINS THAT ARE INVOLVED
IN VARIOUS TYPES OF CELL MOTILITY AND ARE UBIQUITOUSLY EXPRESSED
IN ALL EUKARYOTIC CELLS.
CC -!- SUBCELLULAR LOCATION: Cytoplasmic.
CC -!- MISCELLANEOUS: ON THE 2D-GEL THE DETERMINED PI OF THIS PROTEIN IS:
6.8, ITS MW IS: 46 kDa.
CC -!- SIMILARITY: Belongs to the actin family.
DR InterPro; IPR004001; Actin.
DR InterPro; IPR004000; Actin_like.
DR PROSITE; PS00406; ACTINS_1; PARTIAL.
DR PROSITE; PS00432; ACTINS_2; PARTIAL.
DR PROSITE; PS01132; ACTINS_ACT_LIKE; PARTIAL.
KW Structural protein.
FT NON_TER 1 1
FT NON_TER 8 8
SQ SEQUENCE 8 AA; 976 MW; 1424005AB2CAAB3 CRC64;

Query Match 26.7%; Score 12; DB 1; Length 8;
Best Local Similarity 25.0%; Pred. No. 1.3e+05;
Matches 1; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

QY 6 DINTL 9
|::|
Db 3 DVDI 6

RESULT 15
CCKN_MACEU STANDARD; PRT; 8 AA.
ID CCKN_MACEU
AC P30369;
DT 01-APR-1993 (Rel. 25, Created)
DT 01-APR-1993 (Rel. 25, Last sequence update)
DT 15-SEP-2003 (Rel. 42, Last annotation update)
DE Cholecystokinin (CCK).
GN CCK.
OS Macropus eugenii (Tammam wallaby), and
OS Dasypus viverrinus (Southeastern quoll).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Metatheria; Diprotodontia; Macropodidae; Macropus.
OX NCBI_TaxID=9315, 9279;
RN [1]
RP SEQUENCE.
RC SPECIES=M.eugenii, and D.viverrinus;
RC TISSUE=Brain;
RX MEDLINE=88234141; PubMed=3375140;
RA Fan Z.W., Eng J., Shaw G., Yalow R.S.,
RT "Cholecystokinin octapeptide purified from brains of Australian
marsupials."
RL Peptides 9:429-431(1988).
CC -!- FUNCTION: THIS PEPTIDE HORMONE INDUCES GALL BLADDER CONTRACTION
AND THE RELEASE OF PANCREATIC ENZYMES IN THE GUT. ITS FUNCTION
IN THE BRAIN IS NOT CLEAR.
CC -!- SIMILARITY: BELONGS TO THE GASTRIN/CHOLECYSTOKININ FAMILY.
DR PIR; A43001; A43001.
DR PIR; PQ0012; PQ0012.
DR InterPro; IPR001651; Gastrin.
DR PROSITE; PS00259; GASTRIN; 1.
KW Amidation; Sulfation; Hormone.
FT MOD_RES 2 2 SULFATION.
FT MOD_RES 8 8 AMIDATION.
SQ SEQUENCE 8 AA; 1064 MW; DDCAA68378768B5A CRC64;

Query Match 26.7%; Score 12; DB 1; Length 8;
Best Local Similarity 33.3%; Pred. No. 1.3e+05;
Matches 2; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 YLSGAD 6
|:|
Db 2 YMGWMD 7

Search completed: January 12, 2004, 14:29:02
Job time : 6.25 secs

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: January 12, 2004, 14:25:20 ; Search time 10.25 Seconds
(without alignments)
84.441 Million cell updates/sec

Title: US-09-529-121A-4
Perfect score: 45
Sequence: 1 YLSGANINL 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283308 seqs, 96168682 residues

Total number of hits satisfying chosen parameters: 789

Minimum DB seq length: 0
Maximum DB seq length: 9

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR 76:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	16	35.6	8	2	E60588	sperm-activating p
2	16	35.6	8	2	H41978	callifMRamide 8 -
3	15	33.3	8	2	T13818	cytochrome oxidase
4	15	33.3	9	2	A61364	isotocin - common
5	15	33.3	9	2	PT0288	Ig heavy chain CRD
6	15	33.3	9	2	G41946	T-cell receptor ga
7	14	31.1	5	2	S62883	seminal plasma pro
8	14	31.1	6	2	PT0605	T-cell receptor be
9	14	31.1	6	2	PT0593	T-cell receptor be
10	14	31.1	7	2	A34818	vicillin 72K chain
11	14	31.1	7	2	PT0654	T-cell receptor be
12	14	31.1	7	2	S58797	serine/threonine-s
13	14	31.1	8	2	A21440	variant surface gl
14	14	31.1	8	2	PN0043	phosphatidylethano
15	14	31.1	9	2	CS7444	neuropeptide Grb-A
16	14	31.1	9	2	JQ0914	MHC class I histoc
17	14	31.1	9	2	S56004	glucan 1,3-beta-gl
18	13	28.9	4	2	S43959	Ig mu chain V regi
19	13	28.9	7	2	I40504	hypothetical prote
20	13	28.9	7	2	I50210	gene c-rel protein
21	13	28.9	9	1	YFPG	thymic factor - pi
22	13	28.9	9	2	A60957	thymocyte growth p
23	13	28.9	9	2	C41170	photosystem II pro
24	13	28.9	9	2	PT0268	Ig heavy chain CRD
25	12	26.7	6	2	I51434	H4 histone - Afric
26	12	26.7	7	1	XEYDGD	galactose oxidase
27	12	26.7	8	2	PL0184	capsid protein VP-
28	12	26.7	8	2	PQ0701	unidentified 6.5/3
29	12	26.7	9	2	A44873	caldesmon - rabbit

30	11	24.4	4	2	S43014	hypothetical prote
31	11	24.4	5	1	HOR0HA	proctolin - Americ
32	11	24.4	5	2	C23751	spinal cord peptid
33	11	24.4	5	2	A41225	copper resistance
34	11	24.4	5	2	A60411	proctolin - Atlant
35	11	24.4	5	2	G44817	27.5 kda structura
36	11	24.4	5	2	I44817	27.5K structural p
37	11	24.4	5	2	E44817	28.5K structural p
38	11	24.4	5	2	C44817	28K structural pro
39	11	24.4	5	2	A44817	hypothetical prote
40	11	24.4	6	2	B44510	lipopeptide WS1279
41	11	24.4	6	2	JU0355	Ig heavy chain CRD
42	11	24.4	6	2	PT0280	cytotoxic T-lympho
43	11	24.4	6	2	I49424	microcin C7 - Esch
44	11	24.4	7	2	S45311	unidentified 5.0/1
45	11	24.4	7	2	PQ0728	

ALIGNMENTS

RESULT 1
E60588 sperm-activating peptide a - sea urchin (Pseudoboletia maculata)
N;Alternate names: speract homolog
C;Species: Pseudoboletia maculata
C;Date: 17-Apr-1993 #sequence_revision 17-Apr-1993 #text_change 18-Aug-2000
C;Accession: E60588
R;Yoshino, K.I.; Kajitara, H.; Nomura, K.; Takao, T.; Shimonishi, Y.; Kurita, M.; Yamaguchi
Comp. Biochem. Physiol. B 94, 739-751, 1989
A;Title: A halogenated amino acid-containing sperm activating peptide and its related per
otus nudus, Echinometra mathaei and Heterocentrotus mamillatus.
A;Reference number: A60527
A;Accession: E60588
A;Molecule type: protein
A;Residues: 1-8 <YOS>
C;Superfamily: unassigned animal peptides

Query Match 35.6%; Score 16; DB 2; Length 8;
Best Local Similarity 60.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 2 LSGAN 6
Db 4 LDGVN 8

RESULT 2
H41978 callifMRamide 8 - bluebottle fly (Calliphora vomitoria)
C;Species: Calliphora vomitoria
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 17-Mar-1999
C;Accession: H41978
R;Duve, H.; Johnsen, A.H.; Sewell, J.C.; Scott, A.G.; Orchard, I.; Rehfeld, J.F.; Thorpe,
Proc. Natl. Acad. Sci. U.S.A. 89, 2326-2330, 1992
A;Title: Isolation, structure, and activity of -Phe-Met-Arg-Phe-NH-2 neuropeptides (desig
A;Reference number: A41978; MUID:92196111; PMID:1549595
A;Accession: H41978
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-8 <DUV>
C;Keywords: amidated carboxyl end; neuropeptide
F;8/Modified site: amidated carboxyl end (Phe) #status experimental

Query Match 35.6%; Score 16; DB 2; Length 8;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 4 GAN 6
Db 1 GAN 3

RESULT 3
T13818
cytochrome oxidase subunit I - Atlantic hagfish mitochondrial (fragment)
C/Species: mitochondrial Myxine glutinosa (Atlantic hagfish)
C/Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text_change 21-Jul-2000
C/Accession: T13818
R;Delarbre, C.; Barriol, V.; Tillier, S.; Janvier, P.; Gachelin, G.
Mol. Biol. Evol. 14, 807-813, 1997
A/Title: The main features of the craniate mitochondrial DNA between the ND1 and the COI
A/Reference number: 217775; MUID:97398704; PMID:9254918
A/Accession: T13818
A/Status: preliminary; translated from GB/EMBL/DBJ
A/Molecule type: DNA
A/Residues: 1-8
A/Cross-references: EMBL:Y09527; NID:g2340019; PIDN:CAA70718.1; PID:g2340022
C/Genetics:
A/Genome: mitochondrial
A/Note: COI
C/Keywords: mitochondrial

Query Match 33.3%; Score 15; DB 2; Length 8;
Best Local Similarity 100.0%; Pred.No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLS 3
|||
Db 2 YLS 4

RESULT 4
A61364

Isotocin - common carp
C/Species: Cyprinus carpio (common carp)
C/Date: 09-Sep-1994 #sequence_revision 09-Sep-1994 #text_change 20-Jun-2000
C/Accession: A61364
R;Acher, R.; Chauvet, J.; Chauvet, M.T.; Crepy, D.
Comp. Biochem. Physiol. A 14, 245-254, 1965
A/Title: Caracterisation des hormones neurohypophysaires d'un poisson osseux d'eau douce
A/Reference number: A61364
A/Accession: A61364
A/Status: preliminary
A/Molecule type: protein
A/Residues: 1-9 <ACH>
C/Superfamily: oxytocin-neurophysin
C/Keywords: amidated carboxyl end; neuropeptide; posterior pituitary
F;9/Modified site: amidated carboxyl end (Gly) #status experimental

Query Match 33.3%; Score 15; DB 2; Length 9;
Best Local Similarity 42.9%; Pred.No. 2.8e+05;
Matches 3; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 YLSGANI 7
|:|:|
Db 2 YISNCPI 8

RESULT 5
PT0288

Ig heavy chain CRD3 region (clone 4-106) - human (fragment)
C/Species: Homo sapiens (man)
C/Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Aug-1996
C/Accession: PT0288
R;Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A/Title: Preferential utilization of specific immunoglobulin heavy chain diversity and J
A/Reference number: PT0222; MUID:91108337; PMID:1899102
A/Accession: PT0288
A/Molecule type: DNA
A/Residues: 1-9 <YAM>
A/Experimental source: B lymphocyte
C/Keywords: heterotetramer; immunoglobulin

Query Match 33.3%; Score 15; DB 2; Length 9;

Best Local Similarity 75.0%; Pred.No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 1 YLSG 4
|||
Db 5 YSSG 8

RESULT 6

G41946
T-cell receptor gamma chain (2c.23) - mouse (fragment)
C/Species: Mus musculus (house mouse)
C/Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 07-May-1999
C/Accession: G41946
R;Whetsell, M.; Mosley, R.L.; Whetsell, L.; Schaefer, F.V.; Miller, K.S.; Klein, J.R.
Mol. Cell. Biol. 11, 5902-5909, 1991
A/Title: Rearrangement and junctional-site sequence analyses of T-cell receptor gamma ger
A/Reference number: A41946; MUID:92049316; PMID:1658619
A/Accession: G41946
A/Status: preliminary; not compared with conceptual translation
A/Molecule type: DNA
A/Residues: 1-9 <WHB>
C/Keywords: T-cell receptor

Query Match 33.3%; Score 15; DB 2; Length 9;
Best Local Similarity 75.0%; Pred.No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 YLSG 4
|||
Db 5 YSSG 8

RESULT 7

S62883
seminal plasma protein II - pig (fragment)
C/Species: Sus scrofa domestica (domestic pig)
C/Date: 28-Oct-1996 #sequence_revision 13-Mar-1997 #text_change 17-Mar-1999
C/Accession: S62883
R;Romero, A.; Varela, P.F.; Sanz, L.; Toepfer-Petersen, E.; Calvete, J.J.
FEBS Lett. 382, 15-17, 1996
A/Title: Crystallization and preliminary X-ray diffraction analysis of boar seminal plas
A/Reference number: S62882; MUID:96196555; PMID:8612739
A/Accession: S62883
A/Molecule type: protein
A/Residues: 1-5 <ROM>
C/Complex: heterodimer; seminal plasma protein I and seminal plasma protein II
C/Keywords: glycoprotein; heterodimer; semen

Query Match 31.1%; Score 14; DB 2; Length 5;
Best Local Similarity 75.0%; Pred.No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 5 ANIN 8
|||
Db 1 ARIN 4

RESULT 8

PT0605
T-cell receptor beta chain V-D-J region (120-1L) - mouse (fragment)
C/Species: Mus musculus (house mouse)
C/Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C/Accession: PT0605
R;Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A/Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A/Reference number: PT0509; MUID:91277601; PMID:1711558
A/Accession: PT0605
A/Status: translation not shown
A/Molecule type: mRNA
A/Residues: 1-6 <FEE>
A/Experimental source: newborn thymus, strain BALB/c

C;Keywords: T-cell receptor

Query Match 31.1%; Score 14; DB 2; Length 6;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 3 SGA 5
|||
Db 2 SGA 4

RESULT 9

PT0593

T-cell receptor beta chain V-D-J region (159-1F) - mouse (fragment)

C;Species: Mus musculus (house mouse)

C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997

C;Accession: PT0593

R;Feeney, A.J.

J. Exp. Med. 174, 115-124, 1991

A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.

A;Reference number: PT0509; MUID:91277601; PMID:1711558

A;Accession: PT0593

A;Status: translation not shown

A;Molecule type: mRNA

A;Residues: 1-6 <FEE>

A;Experimental source: day 19 fetal thymus, strain BALB/c

C;Keywords: T-cell receptor

Query Match 31.1%; Score 14; DB 2; Length 6;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 3 SGA 5
|||
Db 4 SGA 6

RESULT 10

A34818

vicilin 72K chain - pigeon pea (fragment)

C;Species: Cajanus cajan (pigeon pea)

C;Date: 13-Jul-1990 #sequence_revision 13-Jul-1990 #text_change 30-Sep-1993

C;Accession: A34818

R;Mawal, Y.R.; Mawal, M.R.; Ranjekar, P.K.

Biochem. Biophys. Res. Commun. 166, 1446-1452, 1990

A;Title: Unusual denaturation properties of vicilin from Cajanus cajan.

A;Reference number: A34818; MUID:90165956; PMID:2306256

A;Accession: A34818

A;Status: preliminary

A;Molecule type: protein

A;Residues: 1-7 <MAW>

Query Match 31.1%; Score 14; DB 2; Length 7;
Best Local Similarity 40.0%; Pred. No. 2.8e+05;
Matches 2; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

OY 4 GANIN 8
|||
Db 1 GARVD 5

RESULT 11

PT0654

T-cell receptor beta chain V-D-J region (121-1BK) - mouse (fragment)

C;Species: Mus musculus (house mouse)

C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997

C;Accession: PT0654

R;Feeney, A.J.

J. Exp. Med. 174, 115-124, 1991

A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.

A;Reference number: PT0509; MUID:91277601; PMID:1711558

A;Accession: PT0654

A;Status: translation not shown

A;Molecule type: mRNA
A;Residues: 1-7 <FEE>
A;Experimental source: day 4 postnatal thymus, strain BALB/c
C;Keywords: T-cell receptor

Query Match 31.1%; Score 14; DB 2; Length 7;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 3 SGA 5
|||
Db 2 SGA 4

RESULT 12

S58797

serine/threonine-specific protein kinase c-mos - rat (fragment)

C;Species: Rattus norvegicus (Norway rat)

C;Date: 15-Feb-1996 #sequence_revision 01-Mar-1996 #text_change 23-Feb-1997

C;Accession: S58797

R;Nagao, Y.

Biochim. Biophys. Acta 1245, 130-143, 1995

A;Title: Expression of c-mos protein in cultured rat spermatogenic cells and evidence the

A;Reference number: S58797; MUID:95383384; PMID:7654761

A;Accession: S58797

A;Status: preliminary

A;Molecule type: protein

A;Residues: 1-7 <NAG>

C;Genetics: A;Gene: c-mos
C;Keywords: phosphotransferase; protein kinase

Query Match 31.1%; Score 14; DB 2; Length 7;
Best Local Similarity 50.0%; Pred. No. 2.8e+05;
Matches 2; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

OY 4 GANI 7
|||
Db 3 GGNL 6

RESULT 13

A21440

variant surface glycoprotein pSLc1 - Trypanosoma brucei (fragment)

C;Species: Trypanosoma brucei

C;Date: 19-Nov-1988 #sequence_revision 19-Nov-1988 #text_change 20-Mar-1998

C;Accession: A21440

R;Parsons, M.; Nelson, R.G.; Watkins, K.P.; Agabian, N.

Cell 38, 309-316, 1984

A;Title: Trypanosome mRNAs share a common 5' spliced leader sequence.

A;Reference number: A90853; MUID:84282716; PMID:6088073

A;Accession: A21440

A;Molecule type: mRNA

A;Residues: 1-8 <PAR>

A;Cross-references: GB:K02195; NID:g162150; PID:g162151

C;Keywords: glycoprotein

Query Match 31.1%; Score 14; DB 2; Length 8;
Best Local Similarity 33.3%; Pred. No. 2.8e+05;
Matches 2; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

OY 2 LSGANI 7
|||
Db 1 MSGKEV 6

RESULT 14

PN0043

phosphatidylethanol amine-binding protein - mouse (fragment)

C;Species: Mus musculus (house mouse)

C;Date: 29-Oct-1997 #sequence_revision 29-Oct-1997 #text_change 23-Jan-1998

C;Accession: PN0043

R;Kato, H.

Kawasaki Igakkaishi 22, 245-259, 1996
A;Title: Analysis of proteins isolated by two dimensional electrophoresis of mouse neuro
A;Reference number: PN0041
A;Accession: PN0043
A;Molecule type: protein
A;Residues: 1-8 <KAT>
A;Experimental source: neuroblastoma cell
C;Comment: The molecular mass is 23,500 and the pI is 4.8. The amino-terminus is blocked
C;Keywords: brain

Query Match 31.1%; Score 14; DB 2; Length 8;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 2 LSG 4
Db 5 LSG 7

RESULT 15
C57444
neuropeptide Grb-AST B3 - two-spotted cricket
C;Species: Gryllus bimaculatus (two-spotted cricket)
C;Date: 26-Jan-1996 #sequence_revision 26-Jan-1996 #text_change 26-Jan-1996
C;Accession: C57444
R;Lorenz, M.W.; Kellner, R.; Hoffmann, K.H.
J. Biol. Chem. 270, 21103-21108, 1995
A;Title: A family of neuropeptides that inhibit juvenile hormone biosynthesis in the cri
A;Reference number: A57444; MUID:95403341; PMID:7673141
A;Accession: C57444
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-9 <LOR>

Query Match 31.1%; Score 14; DB 2; Length 9;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 2 LSG 4
Db 5 LSG 7

Search completed: January 12, 2004, 14:31:53
Job time : 11.25 secs

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OM protein - protein search, using sw model

Run on: January 12, 2004, 14:21:34 ; Search time 6.25 Seconds
(without alignments)
67.718 Million cell updates/sec

Title: US-09-529-121A-4
Perfect score: 45
Sequence: 1 YLSGANINL 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 127863 seqs, 47026705 residues

Total number of hits satisfying chosen parameters: 251

Minimum DB seq length: 0
Maximum DB seq length: 9

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SwissProt_41:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	17	37.8	8	1	CPD1_ENTFA	P13269 enterococcu
2	16	35.6	8	1	FAR8_CALVO	P41863 calliphora
3	15	33.3	9	1	ISOT_CYPCA	P42993 cyprinus ca
4	13	28.9	9	1	OXYT_RAJCL	P42994 raja clavat
5	13	28.9	9	1	THYF_PIG	P01255 sus scrofa
6	12	26.7	9	1	IGAO_DACDE	P06294 dactylium d
7	12	26.7	9	1	BS43_SERPL	P83375 serratia pl
8	12	26.7	9	1	PGLR_DIAAB	P81179 diaprepes a
9	11	24.4	4	1	FAR3_HIRME	P42562 hitrudo medi
10	11	24.4	5	1	PRCT_PERAM	P01373 periplaneta
11	11	24.4	7	1	FAR2_ASCSU	P31890 ascaris suu
12	11	24.4	7	1	GFRP_MOUSE	P99025 mus musculu
13	11	24.4	7	1	LANC_CARUI	P36960 carnobacter
14	11	24.4	8	1	CADI_ENTFA	P13268 enterococcu
15	11	24.4	8	1	LCK8_LEUMA	P19990 leucophaea
16	11	24.4	9	1	FAR6_MACRS	P83279 macrobrachi
17	11	24.4	9	1	MOSF_CLYJA	P19853 clypeaster
18	11	24.4	9	1	OXYA_SCYCA	P42996 scylliorhinu
19	11	24.4	9	1	OXYT_BUFRE	P42995 bufu regula
20	11	24.4	9	1	TAL3_PICJA	P17441 pichia jadi
21	10	22.2	5	1	TPIS_CANFA	P54714 canis famil
22	10	22.2	5	1	UXA4_CHLTR	P38005 chlamydia t
23	10	22.2	6	1	CIP2_MYTEU	P13737 mytilus edu
24	10	22.2	6	1	TMOF_SARBU	P41495 sarcophaga
25	10	22.2	7	1	ALT2_CARMA	P81805 carcinus ma
26	10	22.2	7	1	ALL3_CARMA	P81806 carcinus ma
27	10	22.2	7	1	ALL4_CARMA	P81807 carcinus ma
28	10	22.2	7	1	ALL5_CARMA	P81808 carcinus ma
29	10	22.2	7	1	UNO6_PINPS	P81675 pinus pinas
30	10	22.2	8	1	ALL2_CARMA	P81815 carcinus ma
31	10	22.2	8	1	ALL7_CARMA	P81820 carcinus ma
32	10	22.2	8	1	ALL1_CYPDO	P82152 cydia pomon
33	10	22.2	8	1	ALL6_CYPDO	P82157 cydia pomon

34	10	22.2	8	1	ALL7_CARMA	P81809 carcinus ma
35	10	22.2	8	1	ALL8_CARMA	P81811 carcinus ma
36	10	22.2	8	1	ALL9_CARMA	P81812 carcinus ma
37	10	22.2	8	1	B44K_PORGI	P81886 porphyromon
38	10	22.2	8	1	GLUR_HUMAN	P02729 homo sapien
39	10	22.2	8	1	LCK3_LEUMA	P21142 leucophaea
40	10	22.2	8	1	LCK5_LEUMA	P19987 leucophaea
41	10	22.2	8	1	LPMS_STAEP	P23211 staphylococ
42	10	22.2	8	1	PLP_BRANA	P81707 brassica na
43	10	22.2	8	1	UP06_MOUSE	P38644 mus musculu
44	10	22.2	8	1	UPA1_HUMAN	P30087 homo sapien
45	10	22.2	8	1	VGLG_HSV2B	P81780 herpes simp

ALIGNMENTS

```
RESULT 1
CPD1_ENTFA
ID CPD1_ENTFA STANDARD; PRT; 8 AA.
AC P13269;
DT 01-JAN-1990 (Rel. 13, Created)
DT 01-JAN-1990 (Rel. 13, Last sequence update)
DT 01-FEB-1991 (Rel. 17, Last annotation update)
DE Sex pheromone CPD1.
OS Enterococcus faecalis (Streptococcus faecalis).
OC Bacteria; Firmicutes; Lactobacillales; Enterococcaceae; Enterococcus.
OX NCBI_TaxID=1351;
RN [1]
RP SEQUENCE.
RX MEDLINE=85040388; PubMed=6436978;
RA Suzuki A., Mori M., Sagakami Y., Isogai A., Fujino M., Kitada C.,
RA Craig R.A., Clewell D.B.;
RT "Isolation and structure of bacterial sex pheromone, CPD1.";
RL Science 226:849-850(1984).
CC -!- FUNCTION: CPD1 IS INVOLVED IN THE CONJUGATIVE TRANSFER OF THE
CC BACTERIOCIN PLASMID PPD1.
KW Pheromone.
SQ SEQUENCE 8 AA; 913 MW; 8665B729C682C729 CRC64;

Query Match 37.8%; Score 17; DB 1; Length 8;
Best Local Similarity 75.0%; Pred. No. 1.3e+05;
Matches 3; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLSG 4
Db :|||
5 FLGG 8

RESULT 2
FAR8_CALVO
ID FAR8_CALVO STANDARD; PRT; 8 AA.
AC P41863;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-NOV-1995 (Rel. 32, Last annotation update)
DE Calliphoridae 8.
OS Calliphora vomitoria (Blue blowfly).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC Calliphoridae; Calliphora.
OX NCBI_TaxID=27454;
RN [1]
RP SEQUENCE.
RX TISSUE=Thoracic ganglion;
RX MEDLINE=92196111; PubMed=1549595;
RA Duve H., Johnsen A.H., Sewell J.C., Scott A.G., Orchard I.,
RA Rehfeld J.F., Thorpe A.;
RT "Isolation, structure, and activity of -Phe-Met-Arg-Phe-NH2
RT neuropeptides (designated calliFMRamides) from the blowfly
RT Calliphora vomitoria.";
RL Proc. Natl. Acad. Sci. U.S.A. 89:2326-2330(1992).
CC -!- SIMILARITY: BELONGS TO THE FARP (FMRFAMIDE RELATED PEPTIDE)
```

CC FAMILY.
DR PIR; H41978; H41978.
KW Neuropeptide; Amidation.
FT MOD_RES 8
SQ SEQUENCE 8 AA; 957 MW; 72D40699CAA44DD8 CRC64;

Query Match 35.6%; Score 16; DB 1; Length 8;
Best Local Similarity 100.0%; Pred. No. 1.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 4 GAN 6
Db 1 GAN 3

RESULT 3
ISOT_CYPCA STANDARD; PRT; 9 AA.
ID ISOT_CYPCA
AC P42993;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-NOV-1995 (Rel. 32, Last annotation update)
DE Isotocin.
OS Cyprinus carpio (Common carp).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
OC Cyprinidae; Cyprinus.
OX NCBI_TaxID=7962;
RN [1]
RP SEQUENCE.
RC TISSUE=Pituitary;
RA Acher R., Chauvet J., Chauvet M.-T., Crepy D.;
RT "Characterization of neurohypophyseal hormones from a fresh water bony fish, the carp (Cyprinus carpio). Comparison with hormones from sea water bony fishs.";
RT water bony fishs.";
RL Comp. Biochem. Physiol. 14:245-254(1965).
CC -|- FUNCTION: ANTIDIURETIC HORMONE.
CC -|- SIMILARITY: BELONGS TO THE VASOPRESSIN/OXYTOCIN FAMILY.
DR PIR; A61364; A61364.
DR InterPro; IPR000981; Neurohyp_horm.
DR Pfam; PF00220; hormone4; 1.
DR PROSITE; PS00264; NEUROHYPOPHYS_HORM; 1.
KW Hormone; Amidation.
FT DISULFID 1 6
FT MOD_RES 9 9
SQ SEQUENCE 9 AA; 969 MW; 17FF476EB455B04B CRC64;

Query Match 33.3%; Score 15; DB 1; Length 9;
Best Local Similarity 42.9%; Pred. No. 1.3e+05;
Matches 3; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 YLSGANI 7
Db 2 YISNCP1 8

RESULT 4
OXYT_RAJCL STANDARD; PRT; 9 AA.
ID OXYT_RAJCL
AC P42994;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-NOV-1995 (Rel. 32, Last annotation update)
DE Glumitocin.
OS Raja clavata (Thornback ray).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Chondrichthyes;
OC Elasmobranchii; Squalia; Hypnosqualia; Pristiostoridae; Batoidae;
OC Rajiformes; Rajidae; Raja.
OX NCBI_TaxID=7781;
RN [1]
RP SEQUENCE.
RX MEDLINE=66123415; PubMed=5880565;
RA Acher R., Chauvet J., Chauvet M.-T., Crepy D.;

RT "Phylogeny of neurohypophyseal peptides: isolation of a new hormone, glumitocin (Ser 4-Gln 8-ocytocin) present in a cartilaginous fish, the ray (Raja clavata).";
RL Biochim. Biophys. Acta 107:393-396(1965).
CC -|- FUNCTION: ANTIDIURETIC HORMONE.
CC -|- SIMILARITY: BELONGS TO THE VASOPRESSIN/OXYTOCIN FAMILY.
DR InterPro; IPR000981; Neurohyp_horm.
DR Pfam; PF00220; hormone4; 1.
DR PROSITE; PS00264; NEUROHYPOPHYS_HORM; 1.
KW Hormone; Amidation.
FT DISULFID 1 6
FT MOD_RES 9 9
SQ SEQUENCE 9 AA; 984 MW; 17E9C76EB455B04B CRC64;

Query Match 28.9%; Score 13; DB 1; Length 9;
Best Local Similarity 66.7%; Pred. No. 1.3e+05;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLS 3
Db 2 YIS 4

RESULT 5
THYF_PIG STANDARD; PRT; 9 AA.
ID THYF_PIG
AC P01255;
DT 21-JUL-1986 (Rel. 01, Created)
DT 21-JUL-1986 (Rel. 01, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Thymic factor.
OS Sus scrofa (Pig).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
OX NCBI_TaxID=9823;
RN [1]
RP SEQUENCE.
RX MEDLINE=78026571; PubMed=914862;
RA Pleau J.-M., Dardenne M., Blouquit Y., Bach J.-F.;
RT "Structural study of circulating thymic factor: a peptide isolated from pig serum. II. Amino acid sequence.";
RL J. Biol. Chem. 252:8045-8047(1977).
CC -|- MISCELLANEOUS: THE BIOLOGICAL SOURCE(S) AND PHYSIOLOGICAL ACTIVITIES OF THIS PEPTIDE HAVE NOT BEEN DETERMINED.
CC ACTIVITIES OF THIS PEPTIDE HAVE NOT BEEN DETERMINED.
DR PIR; A01523; YEPG.
KW Pyrrolidone carboxylic acid.
FT MOD_RES 1 1
SQ SEQUENCE 9 AA; 876 MW; D500B87866C5B33D CRC64;

Query Match 28.9%; Score 13; DB 1; Length 9;
Best Local Similarity 66.7%; Pred. No. 1.3e+05;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 4 GAN 6
Db 7 GSN 9

RESULT 6
IGAO_DACDE STANDARD; PRT; 7 AA.
ID IGAO_DACDE
AC P06294;
DT 01-JAN-1988 (Rel. 06, Created)
DT 01-JAN-1988 (Rel. 06, Last sequence update)
DT 01-OCT-1994 (Rel. 30, Last annotation update)
DE Galactose oxidase inhibitor.
OS Dactylium dendroides (Cladobotryum dendroides).
OC Eukaryota; Fungi; Ascomycota; Pezizomycotina; Sordariomycetes;
OC Hypocreomycetidae; Hypocreales; Hypocreaceae; Hypomyces.
OX NCBI_TaxID=5132;
RN [1]
RP SEQUENCE.
RA Avigad G., Markus Z.;

RT "Identification of a peptide inhibitor of galactose oxidase from
RT Dactylium dendroides.";
RL Fed. Proc. 31:447-447(1972).
CC -1- FUNCTION: BINDS ONE COPPER ION PER MOLECULE BUT DOES NOT BIND THE
CC GALACTOSE OXIDASE APOENZYME. IT MAY INACTIVATE THE ENZYME BY
CC BINDING TO ITS PROSTHETIC COPPER GROUP.
DR PIR; A01341; KEYDGD.
KW Copper; Metalloenzyme inhibitor.
SQ SEQUENCE 7 AA; 706 MW; 75BB01A456D87DB0 CRC64;

Query Match 26.7%; Score 12; DB 1; Length 7;
Best Local Similarity 50.0%; Pred. No. 1.3e+05;
Matches 2; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

OY 3 SGAN 6
: | |
Db 1 AGON 4

RESULT 7
BS43_SERPL STANDARD; PRT; 9 AA.
ID BS43_SERPL
AC P83375;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Bacteriocin serracin P 43 kDa subunit (Fragment).
OS Serratia plymuthica.
OC Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC Enterobacteriaceae; Serratia.
OX NCBI_TaxID=82996;
RN [1]
RP SEQUENCE, AND FUNCTION.
RC STRAIN=J7;
RX MEDLINE=22293561; PubMed=12406768;
RA Jabrane A., Sabri A., Compere P., Jacques P., Vandenberghe I.,
RA Van Beeumen J., Thonart P.;
RT "Characterization of serracin P, a phage-tail-like bacteriocin, and
RT its activity against Erwinia amylovora, the fire blight pathogen.";
RL Appl. Environ. Microbiol. 68:5704-5710(2002).
CC -1- FUNCTION: Major component of a prophage tail sheath (Probable).
CC -1- FUNCTION: Antibacterial activity against Gram-negative bacterium
CC E. amylovora.
DR InterPro; IPR006498; Tail_tube.
DR Pfam; PF04985; Phage tube; 1.
KW Antibiotic; Bacteriocin.
FT NON TER 9
SQ SEQUENCE 9 AA; 1095 MW; 1E66D412C871E1FB CRC64;

Query Match 26.7%; Score 12; DB 1; Length 9;
Best Local Similarity 28.6%; Pred. No. 1.3e+05;
Matches 2; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

OY 1 YLSGANI 7
| | |
Db 2 YHGVV 8

RESULT 8
PGLR_DIAAB STANDARD; PRT; 9 AA.
ID PGLR_DIAAB
AC P81179;
DT 15-JUL-1998 (Rel. 36, Created)
DT 15-JUL-1998 (Rel. 36, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Endo-polygalacturonase (PG) (EC 3.2.1.15) (Fragment).
OS Diaprepes abbreviatus (Sugarcane rootstalk borer weevil).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Coleoptera; Polyphaga; Cucujiformia;
OC Phytophaga; Curculionidae; Entiminae; Entimini; Diaprepes.
OX NCBI_TaxID=13040;
RN [1]
RP SEQUENCE.

RC TISSUE=Larval gut;
RA Doostdar H., McCollum T.G., Mayer R.T.;
RT "Purification and characterization of an endo-polygalacturonase from
RT the gut of West Indies sugarcane rootstalk borer weevil (Diaprepes
RT abbreviatus L.) larvae.";
RL Comp. Biochem. Physiol. 118B:861-867(1997).
CC -1- CATALYTIC ACTIVITY: Random hydrolysis of 1,4-alpha-D-
CC galactosiduronic linkages in pectate and other galacturonans.
CC -1- INDUCTION: INHIBITED BY CITRUS PGIP.
CC -1- MISCELLANEOUS: ON THE 2D-GEL THE DETERMINED PI OF THIS PROTEIN IS:
CC 9.4, ITS MW IS: 44.5 kDa.
CC -1- SIMILARITY: WEAK, TO OTHER POLYGALACTURONASES.
KW Hydrolase; Glycosidase; Cell wall.
FT NON TER 9
SQ SEQUENCE 9 AA; 1041 MW; 1F49087042DB41BB CRC64;

Query Match 26.7%; Score 12; DB 1; Length 9;
Best Local Similarity 50.0%; Pred. No. 1.3e+05;
Matches 2; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

OY 1 YLSG 4
| : |
Db 4 YVIG 7

RESULT 9
FAR3_HIRME STANDARD; PRT; 4 AA.
ID FAR3_HIRME
AC P42562;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-NOV-1995 (Rel. 32, Last annotation update)
DE FMRFamide-like neuropeptide YLRF-amide.
OS Hirudo medicinalis (Medicinal leech).
OC Eukaryota; Metazoa; Annelida; Clitellata; Hirudinea; Hirudinea;
OC Arynchobdellida; Hirudiniiformes; Hirudinae; Hirudo.
OX NCBI_TaxID=6421;
RN [1]
RP SEQUENCE.
RX MEDLINE=92195954; PubMed=1686933;
RA Evans B.D., Pohl J., Kartsonis M.A., Calabrese R.L.;
RT "Identification of Rfamde neuropeptides in the medicinal leech.";
RL Peptides 12:897-908(1991).
CC -1- SIMILARITY: BELONGS TO THE FARP (FMRFAMIDE RELATED PEPTIDE)
CC FAMILY.
KW Neuropeptide; Amidation.
FT MOD RES 4
SQ SEQUENCE 4 AA; 598 MW; 69D4073B30000000 CRC64;

Query Match 24.4%; Score 11; DB 1; Length 4;
Best Local Similarity 100.0%; Pred. No. 1.3e+05;
Matches 2; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 YL 2
||
Db 1 YL 2

RESULT 10
PRCT_PERAM STANDARD; PRT; 5 AA.
ID PRCT_PERAM
AC P01373;
DT 21-JUL-1986 (Rel. 01, Created)
DT 21-JUL-1986 (Rel. 01, Last sequence update)
DT 01-FEB-1995 (Rel. 31, Last annotation update)
DE Proctolin.
OS Periplaneta americana (American cockroach),
OS Limulus polyphemus (Atlantic horseshoe crab), and
OS Carcinus maenas (Common shore crab) (Green crab).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blattodea;
OC Blattidae; Periplaneta.
OX NCBI_TaxID=6978, 6850, 6759;

RN [1]
RP SEQUENCE.
RC SPECIES=P.americana;
RX MEDLINE=76074708; PubMed=576;
RA Starratt A.N., Brown B.E.;
RT "Structure of the pentapeptide proctolin, a proposed neurotransmitter
in insects.";
RL Life Sci. 17:1253-1256 (1975).
RN [2]
RP BIOLOGICAL SOURCE.
RC SPECIES=P.americana;
RX MEDLINE=81225865; PubMed=6113690;
RA O'Shea M., Adams M.E.;
RT "Pentapeptide (proctolin) associated with an identified neuron.";
RL Science 213:567-569 (1981).
RN [3]
RP SEQUENCE.
RC SPECIES=L.polyphemus;
RX MEDLINE=90287800; PubMed=2356151;
RA Groome J.R., Tillinghast E.K., Townley M.A., Vetrovs A.,
RA Watson W.H. III, Hunt D.F., Griffin P.R., Alexander J.E.,
RA Shabanowitz J.;
RT "Identification of proctolin in the central nervous system of the
horseshoe crab, Limulus polyphemus.";
RL Peptides 11:205-211 (1990).
RN [4]
RP SEQUENCE.
RC SPECIES=C.maenas;
RX MEDLINE=86232789; PubMed=2872661;
RA Stangler J., Dirksen H., Keller R.;
RT "Identification and immunocytochemical localization of proctolin in
pericardial organs of the shore crab, Carcinus maenas.";
RL Peptides 7:67-72 (1986).
CC -I- FUNCTION: STIMULATES CARDIAC OUTPUT AND HINDGUT MOTILITY,
MODULATES VISCERAL AND SKELETAL MUSCLE IN MANY ARTHROPODS.
CC -I- TISSUE SPECIFICITY: FOUND IN THE LATERAL WHITE NEURONS AND IN
THE CRAB PERICARDIAL ORGANS.
DR PIR; A01644; HOROHA.
DR PIR; A60411; A60411.
KM Neuropeptide.
SQ SEQUENCE 5 AA; 649 MW; 71B7673B44600000 CRC64;

Query Match 24.4%; Score 11; DB 1; Length 5;
Best Local Similarity 100.0%; Pred. No. 1.3e+05;
Matches 2; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 YL 2
Db 2 YL 3

RESULT 11
FAR2_ASCSU
ID FAR2_ASCSU STANDARD; PRT; 7 AA.
AC P31890;
DT 01-JUL-1993 (Rel. 26, Created)
DT 01-JUL-1993 (Rel. 26, Last sequence update)
DT 01-FEB-1996 (Rel. 33, Last annotation update)
DE FMRFamide-like neuropeptide Af2.
DE Ascaris suum (Pig roundworm) (Ascaris lumbricoides), and
OS Panagrellus redivivus.
OC Eukaryota; Metazoa; Nematoda; Chromadorea; Ascaridida; Ascaridoidea;
OC Ascarididae; Ascaris.
OX NCBI_TaxID=6253, 6233;
RN [1]
RP SEQUENCE.
RC SPECIES=A.suum;
RX MEDLINE=93324431; PubMed=8332542;
RA Cowden C., Stretton A.O.W.;
RT "Af2, an Ascaris neuropeptide: isolation, sequence, and bioactivity.";
RL Peptides 14:423-430 (1993).
RN [2]
RP SEQUENCE.

RC SPECIES=P.redivivus;
RX MEDLINE=95060998; PubMed=7970891;
RA Maule A.G., Shaw C., Bowman J.W.;
RT "The FMRFamide-like neuropeptide Af2 (Ascaris suum) is present in the
free-living nematode, Panagrellus redivivus (Nematoda, Rhabditida).";
RL Parasitology 109:351-356 (1994).
CC -I- FUNCTION: HAS EFFECTS ON MUSCLE TENSION.
CC -I- TISSUE SPECIFICITY: FOUND IN THE NERVE CORDS AND A VARIETY OF
GANGLIA PARTICULARLY IN THE ANTERIOR REGIONS.
CC -I- SIMILARITY: BELONGS TO THE FARP (FMRFAMIDE RELATED PEPTIDE)
FAMILY.
KW Neuropeptide; Amidation.
FT MOD_RES 7
SQ SEQUENCE 7 AA; 992 MW; 69D4073B5B1E350 CRC64;

Query Match 24.4%; Score 11; DB 1; Length 7;
Best Local Similarity 100.0%; Pred. No. 1.3e+05;
Matches 2; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 YL 2
Db 4 YL 5

RESULT 12
GFRP_MOUSE
ID GFRP_MOUSE STANDARD; PRT; 7 AA.
AC P99025;
DT 15-DEC-1998 (Rel. 37, Created)
DT 15-DEC-1998 (Rel. 37, Last sequence update)
DT 16-OCT-2001 (Rel. 40, Last annotation update)
DE GTP cyclohydrolase I feedback regulatory protein (P35) (Fragment).
GN GCHFR OR GFRP.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE.
RC TISSUE=Liver;
RA Sanchez J.-C., Rouge V., Frutiger S., Hughes G., Yan J.X.,
RA Hoogland C., Appel R.D., Binz P.-A., Hochstrasser D.F.,
RA Cowthorne M.;
RL Submitted (Aug-1998) to the SWISS-PROT data bank.
CC -I- FUNCTION: MEDIATES TETRAHYDROBIPTERIN INHIBITION OF GTP
CYCLOHYDROLASE I. THIS INHIBITION IS REVERSED BY L-PHENYLALANINE
(BY SIMILARITY).
CC -I- SUBUNIT: Homodimer (By similarity).
DR SWISS-2DPAGE; P99025; MOUSE.
FT INIT_MET 0
FT NON_TER 0
SQ SEQUENCE 7 AA; 806 MW; 71B5B057273B4700 CRC64;

Query Match 24.4%; Score 11; DB 1; Length 7;
Best Local Similarity 100.0%; Pred. No. 1.3e+05;
Matches 2; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 YL 2
Db 2 YL 3

RESULT 13
LANC_CARUI
ID LANC_CARUI STANDARD; PRT; 7 AA.
AC P36960;
DT 01-JUN-1994 (Rel. 29, Created)
DT 01-JUN-1994 (Rel. 29, Last sequence update)
DT 16-OCT-2001 (Rel. 40, Last annotation update)
DE Lantibiotic carnocin UI49 (Fragment).
OS Carnobacterium sp. (strain UI49).
OC Bacteria; Firmicutes; Lactobacillales; Carnobacteriaceae;
OC Carnobacterium.

OX NCBI_TaxID=35782;
RN [1]
RP SEQUENCE.
RX MEDLINE=92321768; Pubmed=1622206;
RA Stoffels G., Nissen-Meyer J., Gudmundsdottir A., Sletten K., Holo H.,
Nes I.P.;
RT "Purification and characterization of a new bacteriocin isolated from
a Carnobacterium sp.";
RL Appl. Environ. Microbiol. 58:1417-1422(1992).
CC -!- FUNCTION: LANTHIONINE-CONTAINING PEPTIDE ANTIBIOTIC (LANTIBIOTIC).
CC ACTIVE ON GRAM-POSITIVE BACTERIA.
KW Antibiotic; Bacteriocin; Lantibiotic.
FT NON TER 7
SQ SEQUENCE 7 AA; 786 MW; 741776D05B05B810 CRC64;

Query Match 24.4%; Score 11; DB 1; Length 7;
Best Local Similarity 50.0%; Pred. No. 1.3e+05;
Matches 2; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

OY 4 GANI 7
|:|
Db 1 GSET 4

RESULT 14
CAD1_ENTFA STANDARD; PRT; 8 AA.
ID _CAD1_ENTFA
AC P13268;
DT 01-JAN-1990 (Rel. 13, Created)
DT 01-JAN-1990 (Rel. 13, Last sequence update)
DT 01-FEB-1991 (Rel. 17, Last annotation update)
DE Sex pheromone CAD1.
OS Enterococcus faecalis (Streptococcus faecalis).
OC Bacteria; Firmicutes; Lactobacillales; Enterococcaceae; Enterococcus.
OX NCBI_TaxID=1351;
RN [1]
RP SEQUENCE.
RX MEDLINE=85051889; Pubmed=6437872;
RA Mori M., Sagakami Y., Narita M., Isogai A., Fujino M., Kitada C.,
RA Craig R.A., Clewell D.B., Suzuki A.;
RT "Isolation and structure of the bacterial sex pheromone, CAD1, that
induces plasmid transfer in Streptococcus faecalis.";
RL FEBS Lett. 178:97-100(1984).
CC -!- FUNCTION: CAD1 IS INVOLVED IN THE CONJUGATIVE TRANSFER OF THE
CC HEMOLYSIN PLASMID PAD1.
KW Pheromone.
SQ SEQUENCE 8 AA; 819 MW; 047DD732C735B9C7 CRC64;

Query Match 24.4%; Score 11; DB 1; Length 8;
Best Local Similarity 66.7%; Pred. No. 1.3e+05;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

OY 2 LSG 4
|:|
Db 6 LAG 8

RESULT 15
LCK8_LEUMA STANDARD; PRT; 8 AA.
ID _LCK8_LEUMA
AC P19990;
DT 01-FEB-1991 (Rel. 17, Created)
DT 01-FEB-1991 (Rel. 17, Last sequence update)
DT 01-FEB-1991 (Rel. 17, Last annotation update)
DE Leucokinin VIII (L-VIII).
OS Leucophaea maderae (Madeira cockroach).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blaberoidea;
OC Blaberidae; Leucophaea.
OX NCBI_TaxID=6988;
RN [1]
RP SEQUENCE.
RC TISSUE=Head;

RA Holman G.M., Cook B.J., Nachman R.J.;
RT "Isolation, primary structure and synthesis of leucokinins VII and
RT VIII: the final members of this new family of cephalomyotropic
RT peptides isolated from head extracts of Leucophaea maderae.";
RL Comp. Biochem. Physiol. 88C:31-34(1987).
CC -!- FUNCTION: THIS CEPHALOMYOTROPIC PEPTIDE STIMULATES CONTRACTILE
CC ACTIVITY OF COCKROACH PROTODEUM (HINDGUT).
CC -!- SIMILARITY: TO THE OTHER LEUCOKININS.
DR PIR; JS0318; JS0318.
KW Neuropeptide; Amidation.
FT MOD_RES 8
SQ SEQUENCE 8 AA; 902 MW; 736365AB59CAADD8 CRC64;

Query Match 24.4%; Score 11; DB 1; Length 8;
Best Local Similarity 66.7%; Pred. No. 1.3e+05;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

OY 4 GAN 6
|:|
Db 1 GAD 3

Search completed: January 12, 2004, 14:29:03
Job time : 7.25 secs

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DT 01-MAY-2000 (Tremblrel. 13, Last annotation update)
DE DYNASTIN 1.
OS Limnodynastes interioris (Giant banjo frog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Neobatrachia; Bufonidae; Myobatrachidae;
OC Limnodynastinae; Limnodynastes.
OX NCBI_TaxID=30362;
RN [1]
RP SEQUENCE, AND MASS SPECTROMETRY.
RC TISSUE=TIBIAL GLAND;
RA Raftery M.J., Bradford A.M., Bowie J.H., Wallace J.C., Tyler M.J.;
RT "Peptides from Australian frogs. The structure of the dynastins from
RT the banjo frogs Limnodynastes interioris, Limnodynastes dumerilii and
RT Limnodynastes terraereginae.";
RL Aust. J. Chem. 46:833-842(1993).
CC -1- MASS SPECTROMETRY: MW=729; METHOD=FAB.
KW Amphibian skin.
SQ SEQUENCE 8 AA; 729 MW; 7C28772865B72728 CRC64;

Query Match 33.3%; Score 15; DB 13; Length 8;
Best Local Similarity 50.0%; Pred. No. 8.3e+05;
Matches 3; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 2 LSGANI 7
Db 3 LSGLGL 8

RESULT 3
Q8KMS3 PRELIMINARY; PRT; 7 AA.
AC Q8KMS3;
DT 01-OCT-2002 (Tremblrel. 22, Created)
DT 01-OCT-2002 (Tremblrel. 22, Last sequence update)
DT 01-OCT-2002 (Tremblrel. 22, Last annotation update)
DE Putative MerR2 protein.
GN MERR2.
OS Klebsiella sp. LS13-39.
OC Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC Enterobacteriaceae; Klebsiella.
OX NCBI_TaxID=143776;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=LS13-39;
RX MEDLINE=21604134; PubMed=11763242;
RA Mindlin S.Z., Kholodil G.Y., Gorlenko Z.M., Minakhina S.V.,
RA Minakhin L.S., Kalyaeva E.S., Kopteva A.V., Petrova M.A.,
RA Yurleva O.V., Nikiforov V.G.;
RT "Mercury resistance transposons of Gram-negative environmental
RT bacteria and their classification.";
RL Res. Microbiol. 152:811-822(2001).
DR EMBL; AJ302776; CAC82975.1; -.
SQ SEQUENCE 7 AA; 608 MW; 6DC1B5BDD87DD6F0 CRC64;

Query Match 31.1%; Score 14; DB 2; Length 7;
Best Local Similarity 40.0%; Pred. No. 8.3e+05;
Matches 2; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

QY 2 LSGAN 6
Db 1 MAGAS 5

RESULT 4
Q9X3K1 PRELIMINARY; PRT; 8 AA.
AC Q9X3K1;
DT 01-NOV-1999 (Tremblrel. 12, Created)
DT 01-NOV-1999 (Tremblrel. 12, Last sequence update)
DT 01-NOV-1999 (Tremblrel. 12, Last annotation update)
DE Cytochrome b (Fragment).
GN PETB.
OS Prochlorococcus sp.
```

```
OC Bacteria; Cyanobacteria; Prochlorophytes; Prochlorococcaceae;
OC Prochlorococcus.
OX NCBI_TaxID=1220;
RN [1]
RP SEQUENCE FROM N.A.
RA Urbach E., Chisholm S.W.;
RT "Genetic diversity in Prochlorococcus populations flow cytometrically
RT sorted from the Sargasso Sea and Gulf Stream.";
RL Limnol. Oceanog. 43:1615-1630(1998).
DR EMBL; AF070193; AAD23233.1; -.
FT NON_TER 1 1
SQ SEQUENCE 8 AA; 799 MW; 10376865B72866D3 CRC64;

Query Match 31.1%; Score 14; DB 2; Length 8;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 2 LSG 4
Db 4 LSG 6

RESULT 5
Q8IUB8 PRELIMINARY; PRT; 8 AA.
AC Q8IUB8;
DT 01-MAR-2003 (Tremblrel. 23, Created)
DT 01-MAR-2003 (Tremblrel. 23, Last sequence update)
DT 01-MAR-2003 (Tremblrel. 23, Last annotation update)
DE CD95 antigen (Fragment).
GN CD95.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=22404279; PubMed=12516573;
RA Kurth J., Pernick A., Schmitz R., Iking-Konert C., Chiorazzi N.,
RA Thompson K.M., Winkler T., Rajewsky K., Kueppers R.;
RT "Lack of deleterious somatic mutations in the CD95 gene of
RT plasmablasts from systemic lupus erythematosus patients and
RT autoantibody-producing cell lines.";
RL Eur. J. Immunol. 32:3785-3792(2002).
DR EMBL; AJ509178; CAD48928.1; -.
FT NON_TER 1 1
FT NON_TER 8 8
SQ SEQUENCE 8 AA; 846 MW; 34B724405DC2D1AB CRC64;

Query Match 31.1%; Score 14; DB 4; Length 8;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 7 INL 9
Db 5 INL 7

RESULT 6
Q9PS69 PRELIMINARY; PRT; 8 AA.
AC Q9PS69;
DT 01-MAY-2000 (Tremblrel. 13, Created)
DT 01-MAY-2000 (Tremblrel. 13, Last sequence update)
DT 01-JUN-2002 (Tremblrel. 21, Last annotation update)
DE Low density lipoprotein receptor-related protein (Fragment).
OS Gallus gallus (Chicken).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC Gallus.
OX NCBI_TaxID=9031;
RN [1]
RP SEQUENCE.
```

RX MEDLINE=92011685; PubMed=1918027;
RA Stifani S., Barber D.L., Aebersold R., Steyrer E., Shen X., Nimpf J.,
RA Schneider W.J.;
RT "The laying hen expresses two different low density lipoprotein
RT receptor-related proteins.";
RL J. Biol. Chem. 266:19079-19087(1991).
FT NON_TER 1 1
FT NON_TER 8 8
SQ SEQUENCE 8 AA; 846 MW; C007272DD865BAAA CRC64;

Query Match 31.1%; Score 14; DB 13; Length 8;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 3 SGA 5
Db 3 SGA 5

RESULT 7
O9R7E8 PRELIMINARY; PRT; 9 AA.
AC Q9R7E8;
DT 01-MAY-2000 (TREMBlrel. 13, Created)
DT 01-MAY-2000 (TREMBlrel. 13, Last sequence update)
DT 01-MAR-2002 (TREMBlrel. 20, Last annotation update)
DE Kp6D (Fragment).
GN KPSD.
OS Escherichia coli.
OG Plasmid PCR3.
OC Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC Enterobacteriaceae; Escherichia.
OX NCBI_TaxID=562;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=95180691; PubMed=7875563;
RA Rosenow C., Roberts I.S., Jann K.;
RT "Isolation from recombinant Escherichia coli and characterization of
RT CMP-Kdo synthetase, involved in the expression of the capsular K5
RT polysaccharide (K-CKS).";
RL FEMS Microbiol. Lett. 125:159-164(1995).
DR EMBL; S76943; AAB33585.1; -.
KM plasmid.
FT NON_TER 1 1
SQ SEQUENCE 9 AA; 899 MW; 3EBBB72042C33DD8 CRC64;

Query Match 31.1%; Score 14; DB 2; Length 9;
Best Local Similarity 50.0%; Pred. No. 8.3e+05;
Matches 3; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

OY 4 GANINL 9
Db 2 GAKVIL 7

RESULT 8
Q8RKC6 PRELIMINARY; PRT; 9 AA.
ID Q8RKC6;
AC Q8RKC6;
DT 01-JUN-2002 (TREMBlrel. 21, Created)
DT 01-JUN-2002 (TREMBlrel. 21, Last sequence update)
DT 01-JUN-2002 (TREMBlrel. 21, Last annotation update)
DE Expr protein (Fragment).
GN EXPR.
OS Erwinia chrysanthemi.
OC Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC Enterobacteriaceae; Pectobacterium.
OX NCBI_TaxID=556;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=3937;
RA Reverchon S.;
RT "Identification of a lysA-like gene required for virulence factors

RT synthesis in Erwinia chrysanthemi.";
RL Submitted (MAR-2002) to the EMBL/GenBank/DBJ databases.
DR EMBL; AJ438189; CAD27339.1; -.
FT NON_TER 9 9
SQ SEQUENCE 9 AA; 999 MW; 9A8BC455B9D5B045 CRC64;

Query Match 31.1%; Score 14; DB 2; Length 9;
Best Local Similarity 28.6%; Pred. No. 8.3e+05;
Matches 2; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

OY 2 LSGANIN 8
Db 3 ISFSNVD 9

RESULT 9
Q9TRSO PRELIMINARY; PRT; 9 AA.
ID Q9TRSO;
AC Q9TRSO;
DT 01-MAY-2000 (TREMBlrel. 13, Created)
DT 01-MAY-2000 (TREMBlrel. 13, Last sequence update)
DT 01-JUN-2002 (TREMBlrel. 21, Last annotation update)
DE Calyculin-associated protein, CAP50=CA2+/phospholipid-binding protein
DE L-7 fragment (Fragment).
OS Oryctolagus cuniculus (Rabbit).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
OX NCBI_TaxID=9986;
RN [1]
RP SEQUENCE.
RX MEDLINE=92250478; PubMed=1533622;
RA Tokumitsu H., Mizutani A., Minami H., Kobayashi R., Hidaka H.;
RT "A calyculin-associated protein is a newly identified member of the
RT Ca2+/phospholipid-binding proteins, annexin family.";
RL J. Biol. Chem. 267:8919-8924(1992).
FT NON_TER 1 1
FT NON_TER 9 9
SQ SEQUENCE 9 AA; 1010 MW; 64E419C44865B72B CRC64;

Query Match 31.1%; Score 14; DB 6; Length 9;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 2 LSG 4
Db 3 LSG 5

RESULT 10
Q31415 PRELIMINARY; PRT; 9 AA.
ID Q31415;
AC Q31415;
DT 01-NOV-1996 (TREMBlrel. 01, Created)
DT 01-JAN-1999 (TREMBlrel. 09, Last sequence update)
DT 01-DEC-2001 (TREMBlrel. 19, Last annotation update)
DE MHC class I antigen (Fragment).
OS Gallus gallus (Chicken).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC Gallus.
OX NCBI_TaxID=9031;
RN [1]
RP SEQUENCE FROM N.A.
RA Kanki T., Kuwasawa N., Sekiya Y., Ichikawa Y.;
RT "Responsive expression of a MHC class I epitope and genes following
RT Marek's disease virus infection.";
RL Submitted (JAN-1992) to the EMBL/GenBank/DBJ databases.
DR EMBL; D90399; BAA14395.1; -.
FT NON_TER 1 1
SQ SEQUENCE 9 AA; 859 MW; 8A55A76455B861B5 CRC64;

Query Match 31.1%; Score 14; DB 7; Length 9;
Best Local Similarity 50.0%; Pred. No. 8.3e+05;

Matches 2; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

OY 3 SGAN 6
:|:|
Db 3 TGSN 6

RESULT 11

Q8VZZ3 PRELIMINARY; PRT; 9 AA.
AC Q8VZZ3;
DT 01-MAR-2002 (TREMBlrel. 20, Created)
DT 01-MAR-2002 (TREMBlrel. 20, Last sequence update)
DT 01-MAR-2002 (TREMBlrel. 20, Last annotation update)
DE Caffeic acid O-methyltransferase (Fragment).
GN AEOMT.
OS Pinus radiata (Monterey pine).
OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC Spermatophyta; Coniferopsida; Coniferales; Pinaceae; Pinus.
OX NCBI_TaxID=3347;
RN [1]
RP SEQUENCE FROM N.A.
RA Moyle R.L., Wagner A., Walter C.;
RT "Isolation and characterization of an AEOMT promoter fragment from
RT Pinus radiata.";
RL Submitted (Aug-2001) to the EMBL/GenBank/DBJ databases.
DR EMBL; AY053389; AAL17620.1; -.
KW Transferase; Methyltransferase.
FT NON_TER 9
SQ SEQUENCE 9 AA; 952 MW; 86EE2874469455BA CRC64;

Query Match 31.1%; Score 14; DB 10; Length 9;
Best Local Similarity 50.0%; Pred. No. 8.3e+05;
Matches 2; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

OY 5 ANIN 8
:|:|
Db 3 SNMN 6

RESULT 12

Q9FEC0 PRELIMINARY; PRT; 9 AA.
AC Q9FEC0;
DT 01-MAR-2001 (TREMBlrel. 16, Created)
DT 01-MAR-2001 (TREMBlrel. 16, Last sequence update)
DT 01-MAR-2003 (TREMBlrel. 23, Last annotation update)
DE MlaIuORF (MLA13uORF 2de).
GN MLaI.
OS Hordeum vulgare (Barley).
OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Poideae;
OC Triticeae; Hordeum.
OX NCBI_TaxID=4513;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=cv. Algerian;
RA Zhou F., Kutch J., Wei F., Elliott C., Vale G., Yahiaoui N.,
RA Keller B., Somerville S., Wise R., Schulze-lefert P.;
RT "Cell-autonomous Expression of Barley MlaI Confers Race-specific
RT Resistance to the Powdery Mildew Fungus via a RarI Independent
RT Signaling Pathway.";
RL Plant Cell 0:0-0(2001).
RN [2]
RP SEQUENCE FROM N.A.
RA Halterman D.A., Wei F., Wise R.P.;
RT "Powdery mildew-induced Mla mRNAs are alternatively spliced and
RT contain multiple upstream open reading frames.";
RL Plant Physiol. 0:0-0(2003).
DR EMBL; AY009939; AAG37357.1; -.
DR EMBL; AY009938; AAG37355.1; -.
DR EMBL; AF523682; AAO16013.1; -.
DR EMBL; AF523683; AAO16016.1; -.
RT

SQ SEQUENCE 9 AA; 1163 MW; 473E2440573B5337 CRC64;

Query Match 31.1%; Score 14; DB 10; Length 9;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 7 INL 9
|||
Db 6 INL 8

RESULT 13

O35953 PRELIMINARY; PRT; 9 AA.
AC O35953;
DT 01-JAN-1998 (TREMBlrel. 05, Created)
DT 01-JAN-1998 (TREMBlrel. 05, Last sequence update)
DT 01-DEC-2001 (TREMBlrel. 19, Last annotation update)
DE Truncated voltage-gated sodium channel alpha subunit (Fragment).
GN SCN8A.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=R111;
RX MEDLINE=97442476; PubMed=9295353;
RA Plummer N.W., McBurney M.W., Meisler M.H.;
RT "Alternative splicing of the sodium channel SCN8A predicts a truncated
RT two-domain protein in fetal brain and non-neuronal cells.";
RL J. Biol. Chem. 272:24008-24015(1997).
DR EMBL; U97672; AAB80914.1; -.
DR MGD; MGI:103169; Scn8a.
KW Ionic channel.
FT NON_TER 1
SQ SEQUENCE 9 AA; 898 MW; 22D92865B735B737 CRC64;

Query Match 31.1%; Score 14; DB 11; Length 9;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 2 LSG 4
|||
Db 5 LSG 7

RESULT 14

Q89491 PRELIMINARY; PRT; 9 AA.
AC Q89491;
DT 01-NOV-1996 (TREMBlrel. 01, Created)
DT 01-NOV-1996 (TREMBlrel. 01, Last sequence update)
DT 01-NOV-1998 (TREMBlrel. 08, Last annotation update)
DE Hypothetical 1.1 kDa protein.
OS Murine minute virus (Murine parvovirus).
OC Viruses; ssDNA viruses; Parvoviridae; Parvovirinae; Parvovirus.
OX NCBI_TaxID=10794;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=LYMPHOTROPIC VARIANT;
RX MEDLINE=86115415; PubMed=3502703;
RA Astell C.R., Gardiner E.M., Tattersall P.;
RT "DNA sequence of the lymphotropic variant of minute virus of mice,
RT MVM(1), and comparison with the DNA sequence of the fibrotropic
RT prototype strain.";
RL J. Virol. 570:656-669(1986).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN=MVM(P);
RX MEDLINE=83143341; PubMed=6298737;
RA Astell C.R., Thomson M., Merchinsky M., Ward D.C.;
RT "The complete DNA sequence of minute virus of mice, an autonomous

RT parvovirus.";
 RL Nucleic Acids Res. 11:999-1018(1983).
 RN [3]
 RP SEQUENCE FROM N.A.
 RC STRAIN=MM(P);
 RX MEDLINE=86115415; PubMed=3502703;
 RA Astell C.R., Gardiner E.M., Tattersall P.;
 RT "DNA sequence of the lymphotropic variant of minute virus of mice,
 RT MVM(1), and comparison with the DNA sequence of the fibrotropic
 RT prototype strain."
 RL J. Virol. 57:656-669(1986).
 RN [4]
 RP SEQUENCE FROM N.A.
 RC STRAIN=MM(P);
 RX MEDLINE=87061199; PubMed=3783817;
 RA Morgan W.R., Ward D.C.;
 RT "Three splicing patterns are used to excise the small intron common to
 RT all minute virus of mice RNAs."
 RL J. Virol. 60:1170-1174(1986).
 DR EMBL; M12032; AAA69570.1; -.
 DR EMBL; J02275; AAA67112.1; -.
 DR EMBL; V01115; CAA24311.1; -.
 KW Hypothetical protein.
 SQ SEQUENCE 9 AA; 1061 MW; C3FD405863637862 CRC64;

Query Match 31.1%; Score 14; DB 12; Length 9;
 Best Local Similarity 50.0%; Pred. No. 8.3e+05;
 Matches 2; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

OY 4 GANI 7
 | |:
 Db 6 GINV 9

RESULT 15
 Q8UTD7 PRELIMINARY; PRT; 9 AA.
 ID Q8UTD7;
 AC Q8UTD7;
 DT 01-MAR-2002 (Tremblrel. 20, Created)
 DT 01-MAR-2002 (Tremblrel. 20, Last sequence update)
 DT 01-OCT-2002 (Tremblrel. 22, Last annotation update)
 DE Vpu protein.
 GN VPU.
 OS Human immunodeficiency virus 1.
 OC Viruses; Retroid viruses; Retroviridae; Lentivirus.
 OK NCBI_TaxID=11676;
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN=00BW1471.27;
 RA Novitsky V.A., Smith U.R., Gilbert P., McLane M.F., Chigwedere P.,
 RA Williamson C., Ndung'u T., Klein I., Chang S.-Y., Peter T., Thior I.,
 RA Foley B.T., Gaolekwe S., Rybak N., Gaseitsiwe S., Vanberg F.,
 RA Marlink R., Lee T.-H., Essex M.;
 RT "HIV-1 subtype C molecular phylogeny: consensus sequence for an AIDS
 RT vaccine design."
 RL Submitted (OCT-2001) to the EMBL/GenBank/DBJ databases.
 DR EMBL; AF443091; AAL34712.1; -.
 SQ SEQUENCE 9 AA; 1102 MW; 188BD40B17272440 CRC64;

Query Match 31.1%; Score 14; DB 15; Length 9;
 Best Local Similarity 100.0%; Pred. No. 8.3e+05;
 Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 7 INL 9
 | | |
 Db 2 INL 4

Search completed: January 12, 2004, 14:31:01
 Job time : 27.75 secs

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: January 12, 2004, 14:25:20 ; Search time 10.25 Seconds
(without alignments)
84.441 Million cell updates/sec

Title: US-09-529-121A-5
Perfect score: 48
Sequence: 1 YLSGACLNL 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283308 seqs, 96168682 residues

Total number of hits satisfying chosen parameters: 789

Minimum DB seq length: 0
Maximum DB seq length: 9

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_76:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	17	35.4	6	2	C22565	R-phycoerythrin be
2	17	35.4	6	2	PT0652	T-cell receptor be
3	15	31.2	5	2	F22565	R-phycoerythrin ga
4	15	31.2	7	2	A12016	formylglycinamide
5	15	31.2	8	2	C61512	variant surface gl
6	15	31.2	8	2	T13818	cytochrome oxidase
7	15	31.2	9	2	S19329	sperm-activating p
8	15	31.2	9	2	PT0288	Ig heavy chain CRD
9	15	31.2	9	2	G41946	T-cell receptor ga
10	14	29.2	5	2	B45525	actin I - malaria
11	14	29.2	6	2	PT0605	T-cell receptor be
12	14	29.2	6	2	PT0593	T-cell receptor be
13	14	29.2	7	2	PT0654	T-cell receptor be
14	14	29.2	8	2	PL0184	capsid protein VP-
15	14	29.2	8	2	PN0043	phosphatidylethano
16	14	29.2	9	2	C57444	neuropeptide Grb-A
17	13	27.1	4	2	S43959	Ig mu chain V regi
18	13	27.1	6	2	I37263	Y protein - human
19	13	27.1	6	2	I49421	laminin B1 - weste
20	13	27.1	7	2	S71867	glutathione transf
21	13	27.1	7	2	S38516	mablinin II chain
22	13	27.1	7	2	A34026	acetylcholinestera
23	13	27.1	7	2	I50210	gene c-rel protein
24	13	27.1	8	2	A37521	R-phycoerythrin ga
25	13	27.1	9	2	A61364	isotocin - common
26	13	27.1	9	2	C41170	photosystem II pro
27	13	27.1	9	2	A29477	diuretic neuropept
28	13	27.1	9	4	I73804	hypothetical E2 pr
29	12	25.0	6	2	I51434	H4 histone - Afric

30	12	25.0	7	2	PN0649	pululanase (EC 3.
31	12	25.0	8	2	PH1407	Ig heavy chain V r
32	12	25.0	8	2	PQ0701	unidentified 6.5/3
33	12	25.0	8	2	A21440	variant surface gl
34	12	25.0	8	2	I57018	gene Cfr protein
35	12	25.0	9	2	A44873	caldesmon - rabbit
36	11	22.9	5	1	HOROHA	proctolin - Americ
37	11	22.9	5	2	C23751	spinal cord peptid
38	11	22.9	5	2	A41225	copper resistance
39	11	22.9	5	2	A60411	proctolin - Atlant
40	11	22.9	6	2	B44510	hypothetical prote
41	11	22.9	6	2	PT0280	Ig heavy chain CRD
42	11	22.9	7	2	B34818	vicilin 57K chain
43	11	22.9	7	2	S78024	ribosomal protein
44	11	22.9	8	2	S59622	metallothionein is
45	11	22.9	8	2	A61467	penalbumin - Adeli

ALIGNMENTS

RESULT 1
C22565 R-phycoerythrin beta-1 chain - red alga (Gastroclonium coulteri) (fragment)
C;Species: Gastroclonium coulteri
C;Date: 07-Mar-1988 #sequence_revision 07-Mar-1988 #text_change 23-Mar-1993
C;Accession: C22565
R;Klotz, A.V.; Glazer, A.N.
J. Biol. Chem. 260, 4856-4863, 1985
A;Title: Characterization of the bilin attachment sites in R-phycoerythrin.
A;Reference number: A22565; MUID:85182601; PMID:3886644
A;Accession: C22565
A;Molecule type: protein
A;Residues: 1-6 <KLO>

Query Match 35.4%; Score 17; DB 2; Length 6;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 5 ACL 7
Db 3 ACL 5

RESULT 2
PT0652 T-cell receptor beta chain V-D-J region (121-1E) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C;Accession: PT0652
R;Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A;Reference number: PT0509; MUID:91277601; PMID:1711558
A;Accession: PT0652
A;Status: translation not shown
A;Molecule type: mRNA
A;Residues: 1-6 <FEE>
A;Experimental source: day 4 postnatal thymus, strain BALB/c
C;Keywords: T-cell receptor

Query Match 35.4%; Score 17; DB 2; Length 6;
Best Local Similarity 75.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 3 SGAC 6
Db 2 SGDC 5

RESULT 3
F22565 R-phycoerythrin gamma-A chain - red alga (Gastroclonium coulteri) (fragment)

C/Species: Gastroclonium coulteri
C/Date: 07-Mar-1988 #sequence_revision 07-Mar-1988 #text_change 23-Mar-1993
C/Accession: F22565
R/Klotz, A.V.; Glazer, A.N.
J. Biol. Chem. 260, 4856-4863, 1985
A/Title: Characterization of the bilin attachment sites in R-phycoerythrin.
A/Reference number: A22565; MUID:85182601; PMID:3886644
A/Accession: F22565
A/Molecule type: protein
A/Residues: 1-5 <KLO>

Query Match 31.2%; Score 15; DB 2; Length 5;
Best Local Similarity 66.7%; Pred. No. 2.8e+05;
Matches 2; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 4 GAC 6
| |
Db 1 GTC 3

RESULT 4

A12016
Formylglycinamide ribonucleotide amidotransferase (EC 2.-.-.-) - chicken (fragment)
C/Species: Gallus gallus (chicken)
C/Date: 05-Jun-1987 #sequence_revision 05-Jun-1987 #text_change 13-Mar-1997
C/Accession: A12016; B12016
R/Ohnoki, S.; Hong, B.S.; Buchanan, J.M.
Fed. Proc. 35, 1549, 1976
A/Title: Amino acid sequence at glutamine active site for FGAR-amidotransferase.
A/Reference number: A91459
A/Accession: A12016
A/Molecule type: protein
A/Residues: 1-7 <OHN>
A/Experimental source: liver, peptide 1
A/Accession: B12016
A/Molecule type: protein
A/Residues: 1-5 <OH2>
A/Experimental source: liver, peptide 2
C/Keywords: transferase

Query Match 31.2%; Score 15; DB 2; Length 7;
Best Local Similarity 66.7%; Pred. No. 2.8e+05;
Matches 2; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 4 GAC 6
| |
Db 1 GVC 3

RESULT 5

C61512
variant surface glycoprotein MITat 1.4 - Trypanosoma brucei (fragment)
C/Species: Trypanosoma brucei
C/Date: 28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change 07-May-1999
C/Accession: C61512
R/Holder, A.A.; Cross, G.A.M.
Mol. Biochem. Parasitol. 2, 135-150, 1981
A/Title: Glycopeptides from variant surface glycoproteins of Trypanosoma brucei. C-termi
A/Reference number: A61512; MUID:81172836; PMID:6163983
A/Accession: C61512
A/Status: preliminary
A/Molecule type: protein
A/Residues: 1-8 <HOL>
C/Keywords: glycoprotein

Query Match 31.2%; Score 15; DB 2; Length 8;
Best Local Similarity 33.3%; Pred. No. 2.8e+05;
Matches 2; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 3 SGACLN 8
| | | |
Db 3 NNACKB 8

RESULT 6
T13818
cytochrome oxidase subunit I - Atlantic hagfish mitochondrion (fragment)
C/Species: mitochondrion Myxine glutinosa (Atlantic hagfish)
C/Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text_change 21-Jul-2000
C/Accession: T13818
R/Delarbre, C.; Barriol, V.; Tillier, S.; Janvier, P.; Gachelin, G.
Mol. Biol. Evol. 14, 807-813, 1997
A/Title: The main features of the craniate mitochondrial DNA between the ND1 and the COI
A/Reference number: Z17775; MUID:97398704; PMID:9254918
A/Accession: T13818
A/Status: preliminary; translated from GB/EMBL/DBJ
A/Molecule type: DNA
A/Residues: 1-8
A/Cross-references: EMBL:Y09527; NID:g2340019; PIDN:CAA70718.1; PID:g2340022
C/Genetics:
A/Genome: mitochondrion
A/Note: COI
C/Keywords: mitochondrion

Query Match 31.2%; Score 15; DB 2; Length 8;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLS 3
| | |
Db 2 YLS 4

RESULT 7

S19329
sperm-activating peptide GAP - sea urchin (Stomopneustes variolus)
C/Species: Stomopneustes variolus
C/Date: 04-Dec-1992 #sequence_revision 04-Dec-1992 #text_change 18-Aug-2000
C/Accession: S19329
R/Yoshino, K.; Takao, T.; Shimonishi, Y.; Suzuki, N.
FEBS Lett. 294, 179-182, 1991
A/Title: Determination of the amino acid sequence of an intramolecular disulfide linkage.
A/Reference number: S19329; MUID:92097763; PMID:1756858
A/Accession: S19329
A/Molecule type: protein
A/Residues: 1-9 <YOS>
C/Superfamily: unassigned animal peptides
F;3-8/Disulfide bonds: #status predicted

Query Match 31.2%; Score 15; DB 2; Length 9;
Best Local Similarity 50.0%; Pred. No. 2.8e+05;
Matches 2; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 4 GACL 7
| | |
Db 6 GKCV 9

RESULT 8

PT0288
Ig heavy chain CRD3 region (clone 4-106) - human (fragment)
C/Species: Homo sapiens (man)
C/Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Aug-1996
C/Accession: PT0288
R/Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A/Title: Preferential utilization of specific immunoglobulin heavy chain diversity and Jc
A/Reference number: PT0222; MUID:91108337; PMID:1899102
A/Accession: PT0288
A/Molecule type: DNA
A/Residues: 1-9 <YAM>
A/Experimental source: B lymphocyte
C/Keywords: heterotetramer; immunoglobulin

Query Match 31.2%; Score 15; DB 2; Length 9;
Best Local Similarity 75.0%; Pred. No. 2.8e+05;

Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 1 YLSG 4
| | |
Db 5 YSSG 8

RESULT 9
G41946
T-cell receptor gamma chain (2c.23) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 07-May-1999
C;Accession: G41946
R;Whetsell, M.; Mosley, R.L.; Whetsell, b.; Schaefer, F.V.; Miller, K.S.; Klein, J.R.
Mol. Cell. Biol. 11, 5902-5909, 1991
A;Title: Rearrangement and junctional-site sequence analyses of T-cell receptor gamma ge
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
A;Reference number: A41946; MUID:92049316; PMID:1658619
C;Accession: G41946
A;Status: preliminary; not compared with conceptual translation
A;Molecule type: DNA
A;Residues: 1-9 <WHE>
C;Keywords: T-cell receptor

Query Match 31.2%; Score 15; DB 2; Length 9;
Best Local Similarity 75.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 YLSG 4
| | |
Db 5 YSSG 8

RESULT 10
B45525
actin I - malaria parasite (Plasmodium falciparum) (fragments)
C;Species: Plasmodium falciparum
C;Date: 03-Jun-1993 #sequence_revision 28-Oct-1994 #text_change 09-Jun-2000
C;Accession: B45525
R;Wesseling, J.G.; Snijders, P.J.F.; van Someren, P.; Jansen, J.; Smits, M.A.; Schoenmak
Mol. Biochem. Parasitol. 35, 167-176, 1989
A;Title: Stage-specific expression and genomic organization of the actin genes of the ma
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
A;Reference number: A45525; MUID:89364996; PMID:2671721
C;Accession: B45525
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-5 <WES>
A;Cross-references: GB:J03988
A;Note: the authors translated the codon GAA for residue 3 as Gly
C;Comment: The actin I gene contains no introns.

Query Match 29.2%; Score 14; DB 2; Length 5;
Best Local Similarity 66.7%; Pred. No. 2.8e+05;
Matches 2; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 4 GAC 6
| | |
Db 2 GGC 4

RESULT 11
PT0605
T-cell receptor beta chain V-D-J region (120-1L) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C;Accession: PT0605
R;Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 20-Feb-1995
C;Accession: PT0605
A;Status: translation not shown
A;Molecule type: mRNA
A;Residues: 1-6 <FEE>

A;Experimental source: newborn thymus, strain BALB/c
C;Keywords: T-cell receptor

Query Match 29.2%; Score 14; DB 2; Length 6;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 3 SGA 5
| | |
Db 2 SGA 4

RESULT 12
PT0593
T-cell receptor beta chain V-D-J region (159-1F) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C;Accession: PT0593
R;Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 20-Feb-1995
C;Accession: PT0593
A;Status: translation not shown
A;Molecule type: mRNA
A;Residues: 1-6 <FEE>
A;Experimental source: day 19 fetal thymus, strain BALB/c
C;Keywords: T-cell receptor

Query Match 29.2%; Score 14; DB 2; Length 6;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 3 SGA 5
| | |
Db 4 SGA 6

RESULT 13
PT0654
T-cell receptor beta chain V-D-J region (121-1BK) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C;Accession: PT0654
R;Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 20-Feb-1995
C;Accession: PT0654
A;Status: translation not shown
A;Molecule type: mRNA
A;Residues: 1-7 <FEE>
A;Experimental source: day 4 postnatal thymus, strain BALB/c
C;Keywords: T-cell receptor

Query Match 29.2%; Score 14; DB 2; Length 7;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 3 SGA 5
| | |
Db 2 SGA 4

RESULT 14
PL0184
capsid protein VP-1 - murine poliovirus (fragment)
C;Species: murine poliovirus, Theiler's encephalomyelitis virus
C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 20-Feb-1995
C;Accession: PL0184
R;Zurbriggen, A.; Hogle, J.M.; Fujinami, R.S.
J. Exp. Med. 170, 2037-2049, 1989
A;Title: Alteration of amino acid 101 within capsid protein VP-1 changes the pathogenicit

A;Reference number: PL0184; MUID:90063468; PMID:2479706
A;Accession: PL0184
A;Molecule type: genomic RNA
A;Residues: 1-8 <ZUR>
C;Keywords: capsid protein

Query Match 29.2%; Score 14; DB 2; Length 8;
Best Local Similarity 50.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 3 SGACLN 8
Db 1 SGGITN 6

RESULT 15

PN0043
phosphatidylethanol amine-binding protein - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 29-Oct-1997 #sequence_revision 29-Oct-1997 #text_change 23-Jan-1998
C;Accession: PN0043
R;Kato, H.
Kawasaki Igakkaiishi 22, 245-259, 1996
A;Title: Analysis of proteins isolated by two dimensional electrophoresis of mouse neuro
A;Reference number: PN0041
A;Accession: PN0043
A;Molecule type: protein
A;Residues: 1-8 <KAT>
A;Experimental source: neuroblastoma cell
C;Comment: The molecular mass is 23,500 and the pI is 4.8. The amino-terminus is blocked
C;Keywords: brain

Query Match 29.2%; Score 14; DB 2; Length 8;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 LSG 4
Db 5 LSG 7

Search completed: January 12, 2004, 14:31:53
Job time : 10.25 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: January 12, 2004, 14:21:34 ; Search time 6.25 Seconds
(without alignments)
67.718 Million cell updates/sec

Title: US-09-529-121A-5
Perfect score: 48
Sequence: 1 YLSGACIML 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 127863 seqs, 47026705 residues

Total number of hits satisfying chosen parameters: 251

Minimum DB seq length: 0
Maximum DB seq length: 9

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SwissProt_41:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	17	35.4	8	1	CPD1_ENTFA P13269 enterococcu
2	15	31.2	9	1	SAP_STOVA P24047 stomopneute
3	13	27.1	9	1	COM_CONVE P83047 conus ventr
4	13	27.1	9	1	DNFI_LOCM1 P16339 locusta mig
5	13	27.1	9	1	ISOT_CYPCA P42993 cyprinus ca
6	13	27.1	9	1	OXYT_RAJCL P42994 raja clavac
7	12	25.0	9	1	PGLR_DIAAB P81179 diaprepes a
8	11	22.9	4	1	FAR3_HIRME P42562 hirudo medi
9	11	22.9	5	1	PRCT_PERAM P01373 periplaneta
10	11	22.9	7	1	FAR2_ASCSU P31890 ascaris suu
11	11	22.9	7	1	GFRP_MOUSE P99025 mus musculu
12	11	22.9	8	1	CADI_ENTFA P13268 enterococcu
13	11	22.9	8	1	COM2_CONPU P58785 conus purpu
14	11	22.9	9	1	CONO_CONST P05487 conus stria
15	11	22.9	9	1	MOSF_CLYJA P19853 clypeaster
16	11	22.9	9	1	OXYA_SQUAC P42999 squalus aca
17	10	20.8	5	1	UXA4_CHLTR P38005 chlamydia t
18	10	20.8	6	1	CIP2_MYTED P13737 mytilus edu
19	10	20.8	6	1	TMOF_SARBU P41495 sarcophaga
20	10	20.8	7	1	ALL2_CARMA P81805 carcinus ma
21	10	20.8	7	1	ALL3_CARMA P81806 carcinus ma
22	10	20.8	7	1	ALL4_CARMA P81807 carcinus ma
23	10	20.8	7	1	ALL5_CARMA P81808 carcinus ma
24	10	20.8	7	1	UNO6_PINPS P81675 pinus pinas
25	10	20.8	8	1	AKH_MEIML P25423 melolontha
26	10	20.8	8	1	ALI2_CARMA P81815 carcinus ma
27	10	20.8	8	1	ALI7_CARMA P81820 carcinus ma
28	10	20.8	8	1	ALI7_CARMA P81809 carcinus ma
29	10	20.8	8	1	ALI8_CARMA P81811 carcinus ma
30	10	20.8	8	1	ALI9_CARMA P81812 carcinus ma
31	10	20.8	8	1	FAR6_CALVO P41863 calliphora
32	10	20.8	8	1	GLUR_HUMAN P02729 homo sapien
33	10	20.8	8	1	HTF_TENMO P25419 tenebrio mo

34	10	20.8	8	1	LCK5_LEUMA P19987 leucophaea
35	10	20.8	8	1	LCK8_LEUMA P19990 leucophaea
36	10	20.8	8	1	RPCH_PANBO P08939 pandalus bo
37	10	20.8	8	1	UF06_MOUSE P38644 mus musculu
38	10	20.8	8	1	VGLG_HSV2B P81780 herpes simp
39	10	20.8	8	1	WPI_PERAT P83195 perkinsus a
40	10	20.8	9	1	ALI0_CARMA P81813 carcinus ma
41	10	20.8	9	1	ALI1_CARMA P81814 carcinus ma
42	10	20.8	9	1	DSIP_RABIT P01158 oryctolagus
43	10	20.8	9	1	FAR5_ASCSU P43170 ascaris suu
44	10	20.8	9	1	FAR6_CALVO P41861 calliphora
45	10	20.8	9	1	FIBB_MACFU P19345 macaca fusc

ALIGNMENTS

RESULT 1									
CPD1_ENTFA	CPD1_ENTFA	STANDARD;	PRT;	8	AA.				
ID_CPDI_ENTFA	AC P13269;								
DT 01-JAN-1990	(Rel. 13, Created)								
DT 01-JAN-1990	(Rel. 13, Last sequence update)								
DT 01-FEB-1991	(Rel. 17, Last annotation update)								
DE	Sex pheromone CPD1.								
OS	Enterococcus faecalis (Streptococcus faecalis).								
OC	Bacteria; Firmicutes; Lactobacillales; Enterococcaceae; Enterococcus.								
OX	NCBI_TaxID=1351;								
RN	[1]								
RP	SEQUENCE.								
RX	MEDLINE=85040388; PubMed=6436978;								
RA	Suzuki A., Mori M., Sagakami Y., Isogai A., Fujino M., Kitada C.,								
RA	Craig R.A., Clewell D.B.;								
RT	"Isolation and structure of bacterial sex pheromone, CPD1.";								
RL	Science 226:849-850(1984).								
CC	-I- FUNCTION: CPD1 IS INVOLVED IN THE CONJUGATIVE TRANSFER OF THE								
CC	BACTERIOCIN PLASMID PPD1.								
KW	Pheromone.								
SQ	SEQUENCE 8 AA; 913 MW; 8665B729C682C729 CRC64;								
Query Match 35.4%; Score 17; DB 1; Length 8;									
Best Local Similarity 75.0%; Pred. No. 1.3e+05;									
Matches 3; Conservative 1; Mismatches 0; Indels 0; Gaps 0;									
QY	1 YLSG 4								
Db	5 FLSG 8								
RESULT 2									
SAP_STOVA	STANDARD;	PRT;	9	AA.					
ID_SAP_STOVA	AC P24047;								
DT 01-MAR-1992	(Rel. 21, Created)								
DT 01-MAR-1992	(Rel. 21, Last sequence update)								
DT 01-MAR-1992	(Rel. 21, Last annotation update)								
DE	Sperm-activating peptide (SAP).								
OS	Stomopneutes variolarius (Sea urchin).								
OC	Eukaryota; Metazoa; Echinodermata; Eleutherozoa; Echinozoa;								
OC	Echinoidea; Euechinoidea; Diadematacea; Phymosomatoida; Stomechinidae;								
OC	Stomopneustes.								
OX	NCBI_TaxID=7663;								
RN	[1]								
RP	SEQUENCE, AND DISULFIDE BOND.								
RC	TISSUE=Egg jelly;								
RX	MEDLINE=92097763; PubMed=1756858;								
RA	Yoshimo K.-I., Takao T., Shimomishi Y., Suzuki N.;								
RT	"Determination of the amino acid sequence of an intramolecular								
RT	disulfide linkage-containing sperm-activating peptide by tandem mass								
RT	spectrometry.";								
RL	FEBS Lett. 294:179-182(1991).								
CC	-I- FUNCTION: CAUSE STIMULATION OF SPERM RESPIRATION AND MOTILITY								
CC	THROUGH INTRACELLULAR ALKALINIZATION, TRANSIENT ELEVATIONS OF								

```
CC CAMP, CGMP AND CLACIUM LEVELS IN SPERM CELLS, AND TRANSIENT
CC ACTIVATION AND SUBSEQUENT INACTIVATION OF THE MEMBRANE FORM OF
CC GUANYLATE CYCLASE.
CC DISULFID 3 8
SQ SEQUENCE 9 AA; 1010 MW; C469B3387B076EB9 CRC64;

Query Match
Best Local Similarity 31.2%; Score 15; DB 1; Length 9;
Best Local Similarity 50.0%; Pred. No. 1.3e+05;
Matches 2; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 4 GACL 7
   ||:
Db 6 GKC 9

RESULT 3
COW_CONVE STANDARD; PRT; 9 AA.
ID_COW_CONVE
AC P83047;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Contryphan-Vn.
OS Conus ventricosus (Mediterranean cone).
OC Eukaryota; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
OC Apogastropoda; Caenogastropoda; Sorbeoconcha; Hypsogastropoda;
OC Neogastropoda; Conoidea; Conidae; Conus.
OX NCBI_TaxID=117992;
RN [1]
RP SEQUENCE, SYNTHESIS, AND MASS SPECTROMETRY.
RC TISSUE=Venom;
RX MEDLINE=21547785; PubMed=11688995;
RA Massilia G.R., Schinina M.E., Ascenzi P., Polticelli F.;
RT "Contryphan-Vn: a novel peptide from the venom of the Mediterranean
   snail Conus ventricosus.";
RL Biochem. Biophys. Res. Commun. 288:908-913(2001).
CC -|- SUBCELLULAR LOCATION: Secreted.
CC -|- TISSUE SPECIFICITY: Expressed by the venom duct.
CC -|- MASS SPECTROMETRY: MW=1088.6; METHOD=MALDI.
CC -|- SIMILARITY: BELONGS TO THE CONTRYPHAN FAMILY.
KM Toxin; Amidation; D-amino acid.
KW DISULFID 3 9
FT MOD_RES 5 5 D-TRYPTOPHAN.
FT MOD_RES 9 9 AMIDATION.
SQ SEQUENCE 9 AA; 1091 MW; 8D38676323676EBA CRC64;

Query Match
Best Local Similarity 27.1%; Score 13; DB 1; Length 9;
Best Local Similarity 66.7%; Pred. No. 1.3e+05;
Matches 2; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 4 GAC 6
   ||:
Db 1 GDC 3

RESULT 4
DNFI_LOCM1 STANDARD; PRT; 9 AA.
ID_DNFI_LOCM1
AC P16339;
DT 01-AUG-1990 (Rel. 15, Created)
DT 01-AUG-1990 (Rel. 15, Last sequence update)
DT 15-DEC-1998 (Rel. 37, Last annotation update)
DB Locupressin (Diuretic neuropeptide F1/F2).
OS Locusta migratoria (Migratory locust).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Orthopteroidea; Orthoptera; Caelifera; Acridomorpha;
OC Acridoidea; Acrididae; Oedipodinae; Locusta.
OX NCBI_TaxID=7004;
RN [1]
RP SEQUENCE.
RC TISSUE=Suboesophageal ganglion, and Thoracic ganglion;
RX MEDLINE=88077077; PubMed=3689410;
RA Proux J.P., Miller C.A., Li J.P., Carney R.L., Glardie A.,
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RA Delaage M., Schooley D.A.;
RT "Identification of an arginine vasopressin-like diuretic hormone from
   Locusta migratoria.";
RL Biochem. Biophys. Res. Commun. 149:180-186(1987).
CC -|- FUNCTION: DIURETIC HORMONE.
CC -|- SUBUNIT: F2 IS AN ANTIPARALLEL DISULFIDE LINKED DIMER OF F1.
CC -|- SIMILARITY: BELONGS TO THE VASOPRESSIN/OXYTOCIN FAMILY.
DR PIR; A29477; A29477.
DR InterPro; IPR000981; Neurhyp_horm.
DR Pfam; PF00220; hormone4; 1.
DR PROSITE; PS00264; NEUROHYPOPHYS_HORM; 1.
KM Hormone; Neuropeptide; Amidation.
FT DISULFID 1 6 IN F1.
FT DISULFID 1 1 INTERCHAIN (WITH C-6') (IN F2).
FT DISULFID 6 6 INTERCHAIN (WITH C-1') (IN F2).
FT MOD_RES 9 9 AMIDATION.
SQ SEQUENCE 9 AA; 976 MW; 56EB176EB451A057 CRC64;

Query Match
Best Local Similarity 27.1%; Score 13; DB 1; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.3e+05;
Matches 2; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 6 CL 7
   ||:
Db 1 CL 2

RESULT 5
ISOT_CYPCA STANDARD; PRT; 9 AA.
ID_ISOT_CYPCA
AC P42993;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-NOV-1995 (Rel. 32, Last annotation update)
DE Isotocin.
OS Cyprinus carpio (Common carp).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
OC Cyprinidae; Cyprinus.
OX NCBI_TaxID=7962;
RN [1]
RP SEQUENCE.
RC TISSUE=Pituitary;
RA Acher R., Chauvet J., Chauvet M.-T., Crepy D.;
RT "Characterization of neurohypophyseal hormones from a fresh water bony
   fish, the carp (Cyprinus carpio). Comparison with hormones from sea
   water bony fishes.";
RL Comp. Biochem. Physiol. 14:245-254(1965).
CC -|- FUNCTION: ANTIDIURETIC HORMONE.
CC -|- SIMILARITY: BELONGS TO THE VASOPRESSIN/OXYTOCIN FAMILY.
DR PIR; A61364; A61364.
DR InterPro; IPR000981; Neurhyp_horm.
DR Pfam; PF00220; hormone4; 1.
DR PROSITE; PS00264; NEUROHYPOPHYS_HORM; 1.
KM Hormone; Amidation.
FT DISULFID 1 6
FT MOD_RES 9 9 AMIDATION.
SQ SEQUENCE 9 AA; 969 MW; 17FF476EB455B04B CRC64;

Query Match
Best Local Similarity 27.1%; Score 13; DB 1; Length 9;
Best Local Similarity 66.7%; Pred. No. 1.3e+05;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLS 3
   ||:
Db 2 YIS 4

RESULT 6
OXYT_RAJCL STANDARD; PRT; 9 AA.
ID_OXYT_RAJCL
AC P42994;
DT 01-NOV-1995 (Rel. 32, Created)
```

DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-NOV-1995 (Rel. 32, Last annotation update)
DE Glumitocin.
OS Raja clavata (Thornback ray).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Chondrichthyes;
OC Elasmobranchii; Squala; Hynostomales; Pristigastera; Batoidae;
OC Rajiformes; Rajidae; Raja.
OC NCBI_TaxID=7781;
RN [1]
RP SEQUENCE.
RX MEDLINE=66123415; PubMed=5880565;
RA Acher R., Chauvet J., Chauvet M.-T., Crepy D.;
RT "Phylogeny of neurohypophyseal peptides: isolation of a new hormone,
RT glumitocin (Ser 4-Gln 8-ocytocin) present in a cartilaginous fish,
RT the ray (Raja clavata).";
RL Biochim. Biophys. Acta 107:393-396(1965).
CC -1- FUNCTION: ANTIDIURETIC HORMONE.
CC -1- SIMILARITY: BELONGS TO THE VASOPRESSIN/OXYTOCIN FAMILY.
DR InterPro: IPR000981; Neurohyp_horm.
DR Pfam: PF00220; hormone4; 1.
DR PROSITE: PS00264; NEUROHYPOPHYS_HORM; 1.
KW Hormone; Amidation.
KM DISULFID 1 6
FT MOD RES 9 9 AMIDATION.
SQ SEQUENCE 9 AA; 984 MW; 17E9C76EB455B04B CRC64;

Query Match 27.1%; Score 13; DB 1; Length 9;
Best Local Similarity 66.7%; Pred. No. 1.3e+05;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

OY 1 YLS 3
|:|
Db 2 YIS 4

RESULT 7
PGLR_DIAAB
ID PGLR DIAAB STANDARD; PRT; 9 AA.
AC P81179;
DT 15-JUL-1998 (Rel. 36, Created)
DT 15-JUL-1998 (Rel. 36, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Endo-polygalacturonase (PG) (EC 3.2.1.15) (Fragment).
OS Diaprepes abbreviatus (Sugar cane rootstalk borer weevil).
OS Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Coleoptera; Polyphaga; Cucujiformia;
OC Phycophaga; Curculionidae; Entiminae; Entimini; Diaprepes.
OC NCBI_TaxID=13040;
OX [1]
RN [1]
RP SEQUENCE.
RP TISSUE=Larval gut;
RA Doostdar H., McColllum T.G., Mayer R.T.;
RT "Purification and characterization of an endo-polygalacturonase from
RT the gut of West Indies sugarcane rootstalk borer weevil (Diaprepes
RT abbreviatus L.) larvae.";
RL Comp. Biochem. Physiol. 118B:861-867(1997).
CC -1- CATALYTIC ACTIVITY: Random hydrolysis of 1,4-alpha-D-
CC galactosiduronic linkages in pectate and other galacturonans.
CC -1- INDUCTION: INHIBITED BY CITRUS PGIP.
CC -1- MISCELLANEOUS: ON THE 2D-GEL THE DETERMINED PI OF THIS PROTEIN IS:
CC 9.4, ITS MW IS: 44.5 kDa.
CC -1- SIMILARITY: WEAK, TO OTHER POLYGALACTURONASES.
KW Hydrolyase; Glycosidase; Cell wall.
FT NON TER 9
SQ SEQUENCE 9 AA; 1041 MW; 1F49087042DB41BB CRC64;

Query Match 25.0%; Score 12; DB 1; Length 9;
Best Local Similarity 50.0%; Pred. No. 1.3e+05;
Matches 2; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

OY 1 YLSG 4
|:|
Db 4 YVIG 7

RESULT 8
FAR3_HIRME
ID FAR3_HIRME STANDARD; PRT; 4 AA.
AC P42562;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-NOV-1995 (Rel. 32, Last annotation update)
DE FMRamide-like neuropeptide YIRF-amide.
OS Hirudo medicinalis (Medicinal leech).
OC Eukaryota; Metazoa; Annelida; Clitellata; Hirudinida; Hirudinea;
OC Arynchobdellida; Hirudiniiformes; Hirudiniidae; Hirudo.
OC NCBI_TaxID=6421;
RN [1]
RP SEQUENCE.
RX MEDLINE=92195954; PubMed=1686933;
RA Evans B.D., Pohl J., Kartsonis M.A., Calabrese R.L.;
RT "Identification of Rfamde neuropeptides in the medicinal leech.";
RL Peptides 12:897-908(1991).
CC -1- SIMILARITY: BELONGS TO THE FARP (FMRPAMIDE RELATED PEPTIDE)
CC FAMILY.
KW Neuropeptide; Amidation.
KM MOD RES 4 4 AMIDATION.
SQ SEQUENCE 4 AA; 598 MW; 69D4073B30000000 CRC64;

Query Match 22.9%; Score 11; DB 1; Length 4;
Best Local Similarity 100.0%; Pred. No. 1.3e+05;
Matches 2; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 YL 2
||
Db 1 YL 2

RESULT 9
PRCT_PERAM
ID PRCT PERAM STANDARD; PRT; 5 AA.
AC P01373;
DT 21-JUL-1986 (Rel. 01, Created)
DT 21-JUL-1986 (Rel. 01, Last sequence update)
DT 01-FEB-1995 (Rel. 31, Last annotation update)
DE Proctolin.
OS Periplaneta americana (American cockroach).
OS Limulus polyphemus (Atlantic horseshoe crab), and
OS Carcinus maenas (Common shore crab) (Green crab).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blattodea;
OC Blattidae; Periplaneta.
OC NCBI_TaxID=6978, 6850, 6759;
OX [1]
RN [1]
RP SEQUENCE.
RP SPECIES=P.americana;
RA MEDLINE=76074708; PubMed=576;
RX Starratt A.N., Brown B.E.;
RT "Structure of the pentapeptide proctolin, a proposed neurotransmitter
RT in insects.";
RL Life Sci. 17:1253-1256(1975).
RN [2]
RP BIOLOGICAL SOURCE.
RP SPECIES=P.americana;
RX MEDLINE=81225865; PubMed=6113690;
RA O'Shea M., Adams M.E.;
RT "pentapeptide (proctolin) associated with an identified neuron.";
RL Science 213:567-569(1981).
RN [3]
RP SEQUENCE.
RP SPECIES=L.polyphemus;
RX MEDLINE=90287800; PubMed=2356151;
RA Groome J.R., Tillinghast E.K., Townley M.A., Vetrovs A.,
RA Watson W.H., III, Hunt D.F., Griffin P.R., Alexander J.E.,
RA Shabanowitz J.;
RT "Identification of proctolin in the central nervous system of the

RT horseshoe crab, Limulus polyphemus.";
RL Peptides 11:205-211(1990).
RN [4]
RP SEQUENCE.
RC SPECIES=C.maenas;
RX MEDLINE=86232789; PubMed=2872661;
RA Stangier J., Dirksen H., Keller R.;
RT "Identification and immunocytochemical localization of proctolin in
pericardial organs of the shore crab, Carcinus maenas.";
RL Peptides 7:67-72(1986).
CC -I- FUNCTION: STIMULATES CARDIAC OUTPUT AND HINDGUT MOTILITY,
MODULATES VISCERAL AND SKELETAL MUSCLE IN MANY ARTHROPODS.
CC -I- TISSUE SPECIFICITY: FOUND IN THE LATERAL WHITE NEURONS AND IN
THE CRAB PERICARDIAL ORGANS.
CC PIR; A01644; HOROHA.
DR PIR; A60411; A60411.
KW Neuropeptide.
SQ SEQUENCE 5 AA; 649 MW; 71B7673B44600000 CRC64;

Query Match 22.9%; Score 11; DB 1; Length 5;
Best Local Similarity 100.0%; Pred. No. 1.3e+05;
Matches 2; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 YL 2
||
Db 2 YL 3

RESULT 10
FAR2_ASCSU STANDARD; PRT; 7 AA.

ID FAR2_ASCSU
AC P31890;
DT 01-JUL-1993 (Rel. 26, Created)
DT 01-JUL-1993 (Rel. 26, Last sequence update)
DT 01-FEB-1996 (Rel. 33, Last annotation update)
DE FMRFamide-like neuropeptide Af2.
OS Ascaris suum (Pig roundworm) (Ascaris lumbricoides), and
OS Panagrellus redivivus.
OC Eukaryota; Metazoa; Nematoda; Chromadorea; Ascaridida; Ascaridoidea;
OC Ascarididae; Ascaris.
OX NCBI_TaxID=6253, 6233;
RN [1]
RP SEQUENCE.
RC SPECIES=A.suum;
RX MEDLINE=93324431; PubMed=8332542;
RA Cowden C., Stretton A.O.W.;
RT "Af2, an Ascaris neuropeptide: isolation, sequence, and bioactivity.";
RL Peptides 14:423-430(1993).
RN [2]
RP SEQUENCE.

RC SPECIES=P.redivivus;
RX MEDLINE=95060998; PubMed=7970891;
RA Maule A.G., Shaw C., Bowman J.W.;
RT "The FMRFamide-like neuropeptide Af2 (Ascaris suum) is present in the
free-living nematode, Panagrellus redivivus (Nematoda, Rhabditida).";
RL Parasitology 109:351-356(1994).
CC -I- FUNCTION: HAS EFFECTS ON MUSCLE TENSION.
CC -I- TISSUE SPECIFICITY: FOUND IN THE NERVE CORDS AND A VARIETY OF
GANGLIA PARTICULARLY IN THE ANTERIOR REGIONS.
CC -I- SIMILARITY: BELONGS TO THE FARP (FMRFAMIDE RELATED PEPTIDE)
FAMILY.
KW Neuropeptide; Amidation.
FT MOD_RES 7
SQ SEQUENCE 7 AA; 992 MW; 69D4073B5B11E350 CRC64;

Query Match 22.9%; Score 11; DB 1; Length 7;
Best Local Similarity 100.0%; Pred. No. 1.3e+05;
Matches 2; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 YL 2
||
Db 4 YL 5

RESULT 11
GFRP_MOUSE STANDARD; PRT; 7 AA.
ID GFRP_MOUSE
AC P99025;
DT 15-DEC-1998 (Rel. 37, Created)
DT 15-DEC-1998 (Rel. 37, Last sequence update)
DT 16-OCT-2001 (Rel. 40, Last annotation update)
DE GTP cyclohydrolase I feedback regulatory protein (P35) (Fragment).
GN GCHFR OR GFRP.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE.

RC TISSUE=Liver;
RA Sanchez J.-C., Rouge V., Frutiger S., Hughes G., Yan J.X.,
RA Hoogland C., Appel R.D., Binz P.-A., Hochstrasser D.F.,
RA Cowthorne M.;
RL Submitted (Aug-1998) to the SWISS-PROT data bank.
CC -I- FUNCTION: MEDIATES TETRAHYDROBIPTERIN INHIBITION OF GTP
CYCLOHYDROLASE I. THIS INHIBITION IS REVERSED BY L-PHENYLALANINE
(BY SIMILARITY).
CC -I- SUBUNIT: Homodimer (By similarity).
DR SWISS-2DPAGE; P99025; MOUSE.
FT INIT MET 0
FT NON TER 0
FT 7
SQ SEQUENCE 7 AA; 806 MW; 71B5B057273B4700 CRC64;

Query Match 22.9%; Score 11; DB 1; Length 7;
Best Local Similarity 100.0%; Pred. No. 1.3e+05;
Matches 2; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 YL 2
||
Db 2 YL 3

RESULT 12
CAD1_ENTFA STANDARD; PRT; 8 AA.
ID CAD1_ENTFA
AC P13268;
DT 01-JAN-1990 (Rel. 13, Created)
DT 01-JAN-1990 (Rel. 13, Last sequence update)
DT 01-FEB-1991 (Rel. 17, Last annotation update)
DE Sex pheromone CAD1.
OS Enterococcus faecalis (Streptococcus faecalis).
OC Bacteria; Firmicutes; Lactobacillales; Enterococcaceae; Enterococcus.
OX NCBI_TaxID=1351;
RN [1]
RP SEQUENCE.

RX MEDLINE=85051889; PubMed=6437872;
RA Mori M., Sagakami Y., Narita M., Isogai A., Fujino M., Kitada C.,
RA Craig R.A., Clewell D.B., Suzuki A.;
RT "Isolation and structure of the bacterial sex pheromone, CAD1, that
induces plasmid transfer in Streptococcus faecalis.";
RL FEBS Lett. 178:97-100(1984).
CC -I- FUNCTION: CAD1 IS INVOLVED IN THE CONJUGATIVE TRANSFER OF THE
HEMOLYSIN PLASMID PAD1.
KW Pheromone.
SQ SEQUENCE 8 AA; 819 MW; 047DD732C735B9C7 CRC64;

Query Match 22.9%; Score 11; DB 1; Length 8;
Best Local Similarity 66.7%; Pred. No. 1.3e+05;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 2 LSG 4
||
Db 6 LAG 8

RESULT 13

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COM2_CONPU
ID COM2_CONPU STANDARD; PRT; 8 AA.
AC P58785;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Leu-contryphan-P.
OS Conus purpurascens (Purple cone).
OC Eukaryota; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
OC Apogastropoda; Caenogastropoda; Sorbeoconcha; Hypsogastropoda;
OC Neogastropoda; Conoidea; Conidae; Conus.
OX NCBI_TaxID=41690;
RN [1]
RP SEQUENCE, SYNTHESIS, AND MASS SPECTROMETRY.
RC STRAIN=Ciiperton Island; TISSUE=Venom;
RX MEDLINE=99388839; PubMed=10461743;
RA Jacobsen R.B., Jimenez E.C., De la Cruz R.G.C., Gray W.R., Cruz L.J.,
RA Olivera B.M.;
RT "A novel D-leucine-containing Conus peptide: diverse conformational
RT dynamics in the contryphan family.";
RL J. Pept. Res. 54:93-99(1999).
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- TISSUE SPECIFICITY: Expressed by the venom duct.
CC -1- MASS SPECTROMETRY: MW=888.4; METHOD=LSIMS.
CC -1- SIMILARITY: BELONGS TO THE CONTRYPHAN FAMILY.
KW Toxin; Hydroxylation; D-amino acid.
FT DISULFID 2 8
FT MOD RES 4 4 D-LEUCINE.
SQ SEQUENCE 8 AA; 890 MW; 75A367672732CEB8 CRC64;

Query Match 22.9%; Score 11; DB 1; Length 8;
Best Local Similarity 50.0%; Pred. No. 1.3e+05;
Matches 2; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 6 CLNL 9
|:|
Db 2 CVLL 5

RESULT 14
CONO_CONST
ID CONO_CONST STANDARD; PRT; 9 AA.
AC P05487;
DT 01-NOV-1988 (Rel. 09, Created)
DT 01-NOV-1988 (Rel. 09, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Arg-conopressin S.
OS Conus striatus (Striated cone).
OC Eukaryota; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
OC Apogastropoda; Caenogastropoda; Sorbeoconcha; Hypsogastropoda;
OC Neogastropoda; Conoidea; Conidae; Conus.
OX NCBI_TaxID=6493;
RN [1]
RP SEQUENCE.
RX MEDLINE=88058932; PubMed=3680228;
RA Cruz L.J., de Santos V., Zafaralla G.C., Ramilo C.A., Zeikus R.D.,
RA Gray W.R., Olivera B.M.;
RT "Invertebrate vasopressin/oxytocin homologs. Characterization of
RT peptides from Conus geographus and Conus striatus venoms.";
RL J. Biol. Chem. 262:15821-15824(1987).
RN [2]
RP REVIEW.
RX MEDLINE=89024586; PubMed=3052286;
RA Gray W.R., Olivera B.M., Cruz L.J.;
RT "Peptide toxins from venomous Conus snails.";
RL Annu. Rev. Biochem. 57:665-700(1988).
CC -1- FUNCTION: Targets vasopressin-oxytocin related receptors.
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- TISSUE SPECIFICITY: Expressed by the venom duct.
CC -1- SIMILARITY: BELONGS TO THE VASOPRESSIN/OXYTOCIN FAMILY.
DR PIR; B28495; B28495.
DR InterPro; IPR000981; Neurhyp_horm.
DR Pfam; PF00220; hormone4; 1.
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DR PROSITE; PS00264; NEUROHYPOPHYS_HORM; 1.
KW Hormone; Amidation.
FT DISULFID 1 6
FT MOD RES 9 9 AMIDATION.
SQ SEQUENCE 9 AA; 1031 MW; 17EB176EB4540050 CRC64;

Query Match 22.9%; Score 11; DB 1; Length 9;
Best Local Similarity 50.0%; Pred. No. 1.3e+05;
Matches 1; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 6 CL 7
|:|
Db 1 CI 2
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RESULT 15
MOSF_CLYJA
ID MOSF_CLYJA STANDARD; PRT; 9 AA.
AC P19853;
DT 01-FEB-1991 (Rel. 17, Created)
DT 01-FEB-1991 (Rel. 17, Last sequence update)
DT 01-FEB-1991 (Rel. 17, Last annotation update)
DE [Phe-6]-mosact.
OS Clypeaster japonicus (Sand dollar).
OC Eukaryota; Metazoa; Echinodermata; Eleutherozoa; Echinozoa;
OC Echinoidea; Euechinoidea; Gnathostomata; Clypeasteroidea;
OC Clypeasteridae; Clypeaster.
OX NCBI_TaxID=7644;
RN [1]
RP SEQUENCE.
RC TISSUE=Egg jelly;
RA Suzuki N., Kurita M., Yoshino K.I., Kajitara H., Nomura K.,
RA Yamaguchi M.;
RT "Purification and structure of mosact and its derivatives from the
RT egg jelly of the sea urchin Clypeaster japonicus.";
RL Zool. Sci. 4:649-656(1987).
CC -1- FUNCTION: Stimulates sperm respiration and motility.
DR PIR; JN0027; JN0027.
SQ SEQUENCE 9 AA; 924 MW; 93245729CDC5BAB5 CRC64;
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Query Match 22.9%; Score 11; DB 1; Length 9;
Best Local Similarity 50.0%; Pred. No. 1.3e+05;
Matches 2; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 YLSG 4
|:|
Db 6 FLIG 9
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Search completed: January 12, 2004, 14:29:03
Job time : 6.25 secs

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: January 12, 2004, 14:21:08 ; Search time 32.25 Seconds
(without alignments)
44.296 Million cell updates/sec

Title: US-09-529-121A-2

Perfect score: 45

Sequence: 1 YLSGADLNL 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1107863 segs, 158726573 residues

Total number of hits satisfying chosen parameters: 179625

Minimum DB seq length: 0
Maximum DB seq length: 9

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database :

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	45	100.0	9	20	AAV09526	Carcinoembryonic a
2	45	100.0	9	21	AAB13750	Peptide fragment #
3	45	100.0	9	22	AAE05124	Modified carcinoem
4	45	100.0	9	22	AAB97818	Carcinoembryonic a
5	45	100.0	9	23	AAB47917	Modified CEA epitope
6	45	100.0	9	23	AAE19089	HLA-A24 restricted
7	43	95.6	9	20	AAV09527	Carcinoembryonic a
8	40	88.9	9	18	AAW39723	Human carcina-emb
9	40	88.9	9	19	AAW77134	CEA synthetic pept

10	40	88.9	9	19	AAW70045	CEA derived HLA-A2
11	40	88.9	9	20	AAV47655	Immunogenic peptide
12	40	88.9	9	20	AAV09525	Carcinoembryonic a
13	40	88.9	9	21	AAB13749	Peptide fragment #
14	40	88.9	9	22	AAB82776	Carcinoembryonic a
15	40	88.9	9	22	AAE05123	Carcinoembryonic a
16	40	88.9	9	22	AAE02673	Human CEA epitopic
17	40	88.9	9	22	AAE00463	Human tumour CEA e
18	40	88.9	9	23	AAE26805	Human HLA-A2.1 res
19	40	88.9	9	23	ABG79073	Human CEA class I
20	40	88.9	9	23	AAV95893	Immunogenic peptide
21	40	88.9	9	23	AAE19088	HLA-A24 restricted
22	38	84.4	9	20	AAV09528	Carcinoembryonic a
23	37	82.2	9	21	AAV54173	HLA binding peptid
24	37	82.2	9	22	AAU26560	Human leukocyte An
25	37	82.2	9	22	AAB99681	HLA A2 binding CTL
26	36	80.0	9	20	AAV09529	Carcinoembryonic a
27	34	75.6	9	22	AAB75854	Tumour associated
28	33	73.3	9	17	AAW00680	Peptide comprising
29	28	62.2	9	23	AAU82064	CEA antigenic pept
30	25	55.6	7	20	AAV41847	Rheumatoid arthrit
31	25	55.6	9	18	AAW38383	Synthetic pMEL17 p
32	25	55.6	9	20	AAV47062	Immunogenic peptid
33	25	55.6	9	23	AAE31162	Human sp100 peptid
34	25	55.6	9	23	AAE31390	Human PM17 peptide
35	24	53.3	6	23	AAE24489	BONT/E N-terminal
36	24	53.3	9	17	AAW00690	NCA analogue of re
37	24	53.3	9	19	AAW70078	B. stearothermophi
38	23	51.1	7	20	AAV41846	Rheumatoid arthrit
39	23	51.1	9	11	AAW07966	Tryptic fragment T
40	23	51.1	9	22	AAU23920	Human MHC class I
41	23	51.1	9	22	AAU24043	Human MHC class I
42	23	51.1	9	22	AAU24335	Human MHC class I
43	23	51.1	9	22	AAB88248	Hap-65 peptide epi
44	23	51.1	9	24	ABU38049	Human cytomegalovi
45	23	51.1	9	24	ABR16172	Human cancer-relat

ALIGNMENTS

RESULT 1	
AAV09526	standard; peptide; 9 AA.
ID	AAV09526
AC	AAV09526;
XX	
DT	20-JUL-1999 (first entry)
XX	
DE	Carcinoembryonic antigen peptide agonist SEQ ID NO:2.
XX	
KW	Carcinoembryonic antigen; CEA; human; agonist; antagonist;
KW	immune response; carcinoma; gastrointestinal; breast; pancreatic;
KW	bladder; ovarian; lung; prostatic; T cell proliferation; cancer;
KW	adoptive transfer therapy; autoimmune reaction; immunotherapy.
XX	
OS	Homo sapiens.
OS	Synthetic.
XX	
PN	WO9919478-A1.
XX	
PD	22-APR-1999.
XX	
PF	22-SEP-1998; 98WO-US19794.
XX	
PR	10-OCT-1997; 97US-0061589.
XX	
PA	(USSH) US DEPT HEALTH & HUMAN SERVICES.
XX	
PI	Barzaga E, Schlom J, Zaremba S;
XX	
DR	WPI, 1999-326544/27.
XX	

PT Peptide agonists and antagonists of carcinoembryonal antigen
XX
PS Claim 5; Page 53; 72pp; English.
XX
XX The present invention describes peptides (A) that comprise agonists (Ia) or antagonists (Ib) of human carcinoembryonal antigen (CEA). (Ia) are used in vaccines to kill or inhibit carcinoma cells that express CEA or its epitopes, particularly for treating gastrointestinal, breast, pancreatic, bladder, ovarian, lung or prostatic carcinoma. They can also be used to proliferate T cells, e.g. from vaccinated subjects, for use in adoptive transfer therapy. (Ib) are used to inhibit CEA-specific immune responses, e.g. in vaccinated subjects, to prevent an autoimmune reaction to cancer immunotherapy (i.e. to prevent an attack on normal but CEA-expressing cells). (Ia) are more active than native sequence (I) and generate a highly specific and systemic anti-CEA response. Cytotoxic T cells generated recognize both (Ia) and native CEA epitopes. The present sequence represents a specifically claimed example of (Ia).
SQ Sequence 9 AA;
Query Match 100.0%; Score 45; DB 20; Length 9;
Best Local Similarity 100.0%; Pred. No. 9.3e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 YLSGADLNL 9
Db 1 YLSGADLNL 9
RESULT 2
AAB13750 AAB13750 standard; peptide; 9 AA.
XX
AC AAB13750;
DT 02-FEB-2001 (first entry)
XX
DE Peptide fragment # 2 from human CEA.
XX
KW Human; T-cell; immune response; antigen; epitope; B7 family molecule;
KW Leukocyte function-associated antigen-3; LFA-3;
KW Intercellular adhesion molecule-1; ICAM-1; vaccine; immunotherapy;
KW colon polyp; Crohn's disease; ulcerative colitis; breast lesion;
KW tumour; CEA.
XX
OS Homo sapiens.
XX
PN WO200034494-A1.
XX
PD 15-JUN-2000.
XX
PF 12-NOV-1999; 99WO-US26866.
XX
PR 09-DEC-1998; 98US-0111582.
XX
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
PA (THER-) THERION BIOLOGICS CORP.
XX
PI Schlom J, Hodge J, Panicali D;
XX
DR WPI; 2000-431307/37.
XX
XX Novel recombinant vector useful as immunogens and vaccines for
PT stimulating and enhancing immunological responses to target cells and
PT antigens expresses multiple co-stimulatory molecules such as B7-1,
PT LFA-3, ICAM-1 -
XX
PS Claim 18; Page 35; 188pp; English.
XX
CC Costimulatory molecules have important roles in T-cell activation and
CC therefore the immune response. The present invention relates to
CC recombinant vectors which comprise of foreign nucleic acid sequences
CC encoding at least three costimulatory molecules: a B7 family molecule,

CC Leukocyte function-associated antigen-3 (LFA-3, human CD58) and
CC intercellular adhesion molecule-1 (ICAM-1, CD54) and optionally a foreign
CC gene encoding a target antigen or immunological epitope. The present
CC sequence is one such target antigen used in the present invention. The
CC present sequence is a tumour-associated antigen. The vector of the
CC present invention would be useful for providing an enhanced immune
CC response to the present target antigen. The vector of the present
CC invention may therefore be useful in immunotherapy for treating or
CC preventing diseases caused by viruses, bacteria, protozoans, parasites,
CC premalignant cells and tumour cells. The recombinant vector can be used
CC to treat or prevent preneoplastic or hyperplastic states such as colon
XX polyps, Crohn's disease, ulcerative colitis and breast lesions.
SQ Sequence 9 AA;
Query Match 100.0%; Score 45; DB 21; Length 9;
Best Local Similarity 100.0%; Pred. No. 9.3e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 YLSGADLNL 9
Db 1 YLSGADLNL 9
RESULT 3
AAE05124 AAE05124 standard; peptide; 9 AA.
XX
AC AAE05124;
DT 18-SEP-2001 (first entry)
XX
DE Modified carcinoembryonic antigen (CEA) peptide, CAP-6D.
XX
KW Tumour-associated antigen; TAA; cytostatic; vaccine; gene therapy;
KW immune response; tetanus toxoid; TT; diphtheria toxoid; DT; prophylactic;
KW cancer; therapeutic; carcinoembryonic antigen; CEA.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Misc-difference 6 /note= "Wild type Asn substituted with Asp"
FT
XX
PN WO200149317-A2.
XX
PD 12-JUL-2001.
XX
PF 05-JAN-2001; 2001WO-CA00005.
XX
PR 05-JAN-2000; 2000US-0174587.
XX
PA (AVET) AVENTIS PASTEUR LTD.
XX
PI Emtage P, Barber BH, Sambhara S, Sia CDY;
XX
DR WPI; 2001-441790/47.
XX
XX Enhancing immune response to antigen such as tumor antigen for treating
PT cancer in an animal involves administering an inducing agent to the
PT animal followed by administering inducing agent-antigen mixture -
XX
PS Example 2; Page 31; 62pp; English.
XX
CC The invention relates to a method of enhancing an immune response against
CC tumour-associated antigens (TAAs), such as GP100 and carcinoembryonic
CC antigen (CEA) in an animal. The method involves priming of the animal
CC with an inducing agent such as tetanus toxoid (TT) or diphtheria toxoid
CC (DT), subsequently followed by administration of an inducing agent-
CC antigen mixture. The method provides the enhancement or augmentation of
CC the immune response to the antigen and/or improves a vaccination protocol
CC by allowing use of less antigen. The immunisation of the animal with
CC tumour-associated antigen is useful for the prophylactic or therapeutic

CC treatment of cancer. The present sequence is modified carcinoembryonic
CC antigen (CEA) peptide fragment related to the invention.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 45; DB 22; Length 9;
Best Local Similarity 100.0%; Pred. No. 9.3e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 YLSGADLNL 9
ID 1 YLSGADLNL 9
DB 1 YLSGADLNL 9

RESULT 4
AAB97818
ID AAB97818 standard; Peptide; 9 AA.

AC AAB97818;

DT 08-AUG-2001 (first entry)

DE Carcinoembryonic antigen (CEA) modified antigen SEQ ID NO:113.

DE Virus; adenovirus; poxvirus; alphavirus; immune response; gp100;
KW tumour antigen; CEA; carcinoembryonic antigen; immunostimulant;
KW cytostatic; immunotherapy; interferon-gamma; IFN-gamma; cancer.

OS Unidentified.

XX WO200130382-A1.

XX 03-MAY-2001.

XX 20-OCT-2000; 2000WO-CA01253.

XX 22-OCT-1999; 99US-0160879.

XX 07-AUG-2000; 2000US-0223325.

XX (AVET) AVENTIS PASTEUR LTD.

XX Berinstein N, Tartaglia J, Moingeon P, Barber B;

XX WPI; 2001-308587/32.

PT Inducing immune response to tumor antigen, useful in immunotherapy of
PT cancer, by administering the antigen to a lymphatic site -

PS Claim 19; Page 9; 60pp; English.

XX The present invention describes a method for inducing an immune response,
CC in an animal, to a tumour antigen (Ag) comprising administering Ag, or
CC nucleic acid (I) that encodes it, to a lymphatic site. Cynomolgus monkeys
CC (Macaca fascicularis) were injected with a modified form of gp100 antigen
CC (a) into the left inguinal lymph node or (b) subcutaneously. Both animals
CC of (a) developed a cell-mediated response (indicated by production of
CC interferon-gamma from T lymphocytes when exposed to gp100 peptides), but
CC only 2 of 4 animals of (b) did so. Also animals in (a) produced a far
CC greater antibody response to gp100. The method is used in immunotherapy
CC of a wide range of cancers through induction of a specific immune
CC response (humoral and cellular) against the tumour antigens. When
CC administered to a lymphatic site, Ag (or (I)) induces a stronger immune
CC response than administration by other routes and may also break tolerance
CC to Ag. AAB97708 and AAB97709 represent gp100 epitopes; AAB97710 to
CC AAB97815 represent peptides derived from gp100 which stimulate interferon
CC (IFN)-gamma production; AAH20120 encodes the modified gp100 protein given
CC in AAB97816; AAH20121 encodes the modified carcinoembryonic antigen (CEA)
CC protein given in AAB97817; and AAB97818 represents a CEA modified antigen
CC peptide, all of which are used in the exemplification of the present
CC invention.

XX Sequence 9 AA;

Query Match 100.0%; Score 45; DB 22; Length 9;
Best Local Similarity 100.0%; Pred. No. 9.3e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 YLSGADLNL 9
ID 1 YLSGADLNL 9
DB 1 YLSGADLNL 9

RESULT 5
AAB47917
ID AAB47917 standard; peptide; 9 AA.

AC AAB47917;

DT 16-MAY-2002 (first entry)

DE Modified CEA epitope, CEA(6D).

DE CAP-1; epitope; carcinoembryonic antigen; CEA; agonist; immune response;
KW carcinoma; gastrointestinal; breast; pancreatic; bladder; ovarian;
KW lung; prostate; cancer.

OS Synthetic.

XX Key Location/Qualifiers
FH Misc-difference 6 /label= N6D
FT
FT

XX WO200210379-A2.

XX 07-FEB-2002.

XX 27-JUL-2001; 2001WO-CA01092.

XX 31-JUL-2000; 2000US-222043P.

XX (AVET) AVENTIS PASTEUR LTD.
XX (THER-) THERION BIOLOGICS.
XX (USSH) US NAT CANCER INST.

XX Berinstein N, Tartaglia J, Tine JA, Panicali DL, Gritz L;

XX Schlom J;

XX WPI; 2002-206189/26.

PT Carcinoembryonic antigen agonist polypeptide for inducing an immune
PT response in animal against antigen and for inhibiting an epitope
PT antigen expressing carcinoma cell, comprises a modified antigen epitope

PS Claim 1; Page 38; 69pp; English.

XX This sequence represents a modified CAP-1 epitope of carcinoembryonic
CC antigen (CEA) which was used as part of the CEA agonist polypeptide of
CC the invention. The modification of position 6 of this peptide from Asp
CC to Asn increases its immunogenicity. The CEA agonist polypeptide of
CC the invention, or DNA encoding it, are useful for:
CC (i) inducing an immune response in an animal directed against a CEA
CC protein or fragment, CEA agonist, a CEA epitope, a modified CEA epitope,
CC cells expressing or binding a CEA protein or fragment; and
CC (ii) inhibiting a CEA epitope expressing carcinoma cell, which is a
CC gastrointestinal, breast, pancreatic, bladder, ovarian, lung or
CC prostate carcinoma cell in a patient, hence is useful for manufacture
CC of a medicament for the treatment of cancer.

XX Sequence 9 AA;

Query Match 100.0%; Score 45; DB 23; Length 9;
Best Local Similarity 100.0%; Pred. No. 9.3e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 YLSGADLNL 9

Db 1 YLSGADLNL 9

RESULT 6
AAE19089
ID AAE19089 standard; peptide; 9 AA.
AC AAE19089;
XX
DT 21-MAY-2002 (first entry)
XX
DE HLA-A24 restricted target antigen CEA immunological epitope #3.
XX

KW Human leukocyte antigen; HLA; pharmaceutical composition; target antigen;
KW immunological epitope; replication-defective virus; RDV; immune response;
KW chemotherapy; granulocyte-monocyte-colony stimulating factor; cytostatic;
KW GM-CSF; MHC; major histocompatibility complex; tumour; head; pancreatic;
KW neck; breast; prostate; colorectal; melanoma; myeloidysplastic syndrome;
KW metastatic breast skin lesion; corticosteroid therapy; erythropoietin;
KW cytopenia; neutropenia; vaccine; immunostimulant.
KW
XX
OS Homo sapiens.
XX
PN WO200195919-A2.
XX
PD 20-DEC-2001.
XX
PF 15-JUN-2001; 2001WO-US19201.
XX
PR 15-JUN-2000; 2000US-211717P.
XX
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
PA (THER-) THERION BIOLOGICS CORP.
XX
PI Schlom J, Greiner JW, Kass E, Panicali D;
XX
XX WPI; 2002-205852/26.
DR
XX
PT Composition for enhancing immune responses, particularly anti-tumour
PT responses and treating neutropenia, cytopenia, comprises
PT replication-defective virus encoding granulocyte-monocyte-colony
PT stimulating factor -
XX
XX
PS Claim 9; Page 15; 118pp; English.
XX

CC The present invention relates to a pharmaceutical composition comprising
CC a replication-defective virus (RDV) encoding granulocyte-monocyte-colony
CC stimulating factor (GM-CSF). The invention is useful for enhancing cell-
CC mediated or humoral immune response in an individual, by enhancing
CC migration of APC expressing CD11c⁺/I-Ab⁺, major histocompatibility
CC complex (MHC) class II, at an injection site, regional lymph node at a
CC tumour site, APC proliferation or function, CD4⁺T or CD8⁺T cell
CC activation, interleukin (IL)-2, interferon (IFN)-gamma or tumour necrosis
CC factor (TNF)-alpha production or their combinations. The composition
CC enhances an antigen-specific T-cell response in an individual to a target
CC antigen or its immunological epitope and an anti-tumour response in an
CC individual with a head tumour, neck, breast, pancreatic, prostate,
CC colorectal or metastatic tumour or melanoma, or metastatic breast skin
CC lesion. The invention is further useful for treating neutropenia
CC resulting from chemotherapy, corticosteroid therapy, irradiation or an
CC infection, by raising the neutrophil count to normal levels and for
CC treating cytopenias in patients with myeloidysplastic syndrome in
CC combination with erythropoietin, by increasing neutrophil count and
CC erythroid precursors. The composition enhances immune response to
CC vaccines such as DPT, Td, DtaP, Hib, DtaP-Hib, MMR, Hepatitis A,
CC hepatitis B, Lyme's disease, influenza, tetravalent meningococcal
CC polysaccharide, pneumococcal polysaccharide, anthrax, cholera, plague,
CC yellow fever and Bacille Calmette-Guerin vaccine. The present sequence
CC is human leukocyte antigen (HLA)-restricted target tumour antigen
CC immunological epitope.
XX
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 45; DB 23; Length 9;
Best Local Similarity 100.0%; Pred. No. 9.3e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLSGADLNL 9
Db 1 YLSGADLNL 9

RESULT 7
AAY09527
ID AAY09527 standard; peptide; 9 AA.
XX
AC AAY09527;
XX
DT 20-JUL-1999 (first entry)
XX
DE Carcinoembryonic antigen peptide agonist SEQ ID NO:3.
XX
KW Carcinoembryonic antigen; CEA; human; agonist; antagonist;
KW immune response; carcinoma; gastrointestinal; breast; pancreatic;
KW bladder; ovarian; lung; prostatic; T cell proliferation; cancer;
KW adoptive transfer therapy; autoimmune reaction; immunotherapy.
KW
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO9919478-A1.
XX
PD 22-APR-1999.
XX
PF 22-SEP-1998; 98WO-US19794.
XX
PR 10-OCT-1997; 97US-0061589.
XX
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
PA Barzaga E, Schlom J, Zaremba S;
XX
PI
XX
DR WPI; 1999-326544/27.
XX
PT Peptide agonists and antagonists of carcinoembryonal antigen
PT
XX
XX
PS Claim 5; Page 53; 72pp; English.
XX

CC The present invention describes peptides (A) that comprise agonists (Ia)
CC or antagonists (Ib) of human carcinoembryonal antigen (CEA). (Ia) are
CC used in vaccines to kill or inhibit carcinoma cells that express CEA or
CC its epitopes, particularly for treating gastrointestinal, breast,
CC pancreatic, bladder, ovarian, lung or prostatic carcinoma. They can also
CC be used to proliferate T cells, e.g. from vaccinated subjects, for use
CC in adoptive transfer therapy. (Ib) are used to inhibit CEA-specific
CC immune responses, e.g. in vaccinated subjects, to prevent an autoimmune
CC reaction to cancer immunotherapy (i.e. to prevent an attack on normal but
CC CEA-expressing cells). (Ia) are more active than native sequence (I) and
CC generate a highly specific and systemic anti-CEA response. Cytotoxic T
CC cells generated recognize both (Ia) and native CEA epitopes. The present
CC sequence represents a specifically claimed example of (Ia).
XX
XX
SQ Sequence 9 AA;

Query Match 95.6%; Score 43; DB 20; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLSGADLNL 9
Db 1 YLSGADLNL 9

RESULT 8
AAW39723

ID AAW39723 standard; peptide; 9 AA.
XX
AC AAW39723;
XX
DT 11-JUN-1998 (first entry)
XX
DE Human carcina-embryonic antigen (CEA) peptide (pos. 571-579).
XX
KW T cell epitope; immune response; human leukocyte antigen; HLA Class I;
KW vaccine; immunogenic; major histocompatibility complex; MHC; B cell;
KW disease; anti-tumour; anti-viral.
XX
OS Homo sapiens.
XX
PN WO9741440-A1.
XX
PD 06-NOV-1997.
XX
PF 28-APR-1997; 97WO-NL00229.
XX
PR 23-DEC-1996; 96EP-0203670.
PR 26-APR-1996; 96EP-0201145.
XX
PA (UYLE-) RIJKSUNIV LEIDEN.
PA (SCIS-) SCI SEED CAPITAL INVESTMENTS BV.
XX
PI Kast WM, Melief CJM, Offringa R, Toes REM, Van Der Burg SH;
PI WPI; 1997-549891/50.
XX
DR WPI; 1997-549891/50.
XX
PT Method of selecting T cell peptide epitope(s) - by measuring the
PT stability of HLA class I-peptide complexes on intact B cells
XX
XX Example 3; Page 85; 109pp; English.
PS
XX Peptides AAW39430-W39734 are used in a novel method for the selection of
CC immunogenic T-cell peptide epitopes present in polypeptide antigens. The
CC method involves the identification of peptide sequences capable of
CC binding to an HLA (human leukocyte antigen) class I molecule and
CC measuring the binding of this epitope peptide to the HLA class I
CC peptide. The stability of binding of the peptide and MHC (major
CC histocompatibility complex) class I molecule is measured on intact human
CC B cells carrying the MHC molecule at their cell surfaces. The method can
CC be used to select peptide epitopes for generating vaccines against a
CC disease associated with the polypeptide, e.g. cancers or AIDS. The
CC peptide epitopes are especially T-cell peptide epitopes with strong
CC anti-tumour and anti-viral immune responses. Peptide AAW39723 is derived
CC from the human carcino-embryonic antigen (CEA) and has the ability to
CC bind to the human MHC Class I allele HLA-A2.1.
XX
XX
SQ Sequence 9 AA;
Query Match 88.9%; Score 40; DB 18; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
OY 1 YLSGADLNL 9
| | | | | : | | |
| | | | | : | | |
DB 1 YLSGANLNL 9

RESULT 9
AAW77134
ID AAW77134 standard; peptide; 9 AA.
XX
AC AAW77134;
XX
DT 16-NOV-1998 (first entry)
XX
DE CEA synthetic peptide epitope 1.
XX
KW Tyrosinase; tyrosinase cytotoxic lymphocyte response;
KW cytotoxic T lymphocyte; cysteine-depleted; melanoma.
PI

XX
OS Synthetic.
XX
XX WO9833810-A2.
XX
XX 06-AUG-1998.
XX
XX 29-JAN-1998; 98WO-US01592.
XX
XX 30-JAN-1997; 97US-0037781.
XX
XX (UYVI-) UNIV VIRGINIA PATENT FOUND.
XX
XX Engelhard VH, Hunt DF, Kittlesen D, Slingluff CL;
XX WPI; 1998-437388/37.
XX
XX
XX Disease specific immunogen - comprises disease specific cytotoxic T
PT lymphocyte epitope used to elicit melanoma specific CTL response
XX
XX
XX Disclosure; Page 27; 93pp; English.
XX
XX The peptide epitope AAW77119-W77138 were created for human
CC tumour-specific cytotoxic T lymphocyte response. These peptides are
CC cysteine- depleted mutants of a native disease-specific CTL epitope. The
CC cysteine- depleted CTL epitopes elicit a stronger or more specific CTL
CC response than the native epitope. The epitopes can be used in a
CC disease-specific immunogen to protect a mammal against disease in
CC particular melanomas. The peptides may also be used to screen a sample
CC for the presence of an antigen with the same epitope, or with a different
CC cross-reactive epitope.
XX
XX
SQ Sequence 9 AA;
Query Match 88.9%; Score 40; DB 19; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
OY 1 YLSGADLNL 9
| | | | | : | | |
| | | | | : | | |
DB 1 YLSGANLNL 9

RESULT 10
AAW70045
ID AAW70045 standard; peptide; 9 AA.
XX
AC AAW70045;
XX
DT 22-OCT-1998 (first entry)
XX
DE CEA derived HLA-A2.1 binding peptide 2 (residues 605-613).
XX
KW Cytotoxic T lymphocyte; CTL; major histocompatibility complex; MHC;
KW human leukocyte antigen; HLA; tumour associated antigen; cancer;
KW antigen presenting cell; APC; immunogenic peptide; immune disorder;
KW viral infection; AIDS; hepatitis; bacterial infection; malaria; CEA;
KW fungal infection; tuberculosis; melanoma; carcinoembryonic antigen.
XX
XX Synthetic.
XX OS Homo sapiens.
XX
XX WO9833888-A1.
XX
XX 06-AUG-1998.
XX
XX 30-JAN-1998; 98WO-US01959.
XX
XX 31-JAN-1997; 97US-0036696.
XX
XX (EPIM-) EPIMUNE INC.
XX
XX Cells E, Sette A, Sidney J, Southwood S, Tsai V;
PI

XX WPI; 1998-437445/37.
DR
XX
XX Production of antigen-specific cytotoxic T cells - by incubating
PT immunogenic peptide(s) from antigen that binds class I major
PT histocompatibility complex molecules with pre-treated antigen
PT presenting cells
XX
XX Example 6; Page 75; 104pp; English.
PS
XX
XX Sequences shown in AAW70044 to AAW70052 represent peptides derived from
CC carcinomaembryonic antigen (CEA). The peptides can bind to a human
CC leukocyte antigen (HLA), HLA-A2.1 and are used to exemplify the method
CC of invention of producing antigen-specific cytotoxic T cells (CTLs) in
CC vitro. The method comprises contacting immunogenic peptides from an
CC antigen that binds class I major histocompatibility complex (MHC)
CC molecules with antigen presenting cells (APCs) pretreated with
CC pretreatment growth factors, and incubating the APCs with purified CD8
CC cells in the presence of at least 2 incubation growth factors, thereby
CC producing antigen-specific CTLs. A method for specifically killing
CC target cells in a human patient is also provided which comprises
CC obtaining a fluid sample containing CTLs from a patient, contacting the
CC cytotoxic T cells with APCs pretreated with pre-treatment growth
CC factors, where the APCs comprise class I MHC molecules. The pretreated
CC APCs are incubated with the cytotoxic growth factors, thereby producing
CC activated CTLs which are contacted with a carrier to form a composition.
CC The composition can then be administered to the patient. The activated
CC CTLs can be used for treating cancers, immune disorders, viral
CC infections, AIDS, hepatitis, bacterial infection, fungal infection,
CC malaria or tuberculosis.
XX
SQ Sequence 9 AA;
Query Match 88.9%; Score 40; DB 19; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
OY 1 YLSGADLNL 9
Db 1 YLSGANLNL 9
RESULT 11
AAV47655
ID AAV47655 standard; Peptide; 9 AA.
XX
AC AAV47655;
XX
DT 01-DEC-1999 (first entry)
XX
DE Immunogenic peptide having a human leukocyte antigen binding motif #2266.
XX
KW Human leukocyte antigen; binding; immunogenic; glycoprotein; MHC; HLA;
KW immune response; T cell activation; major histocompatibility complex;
KW cytotoxic T lymphocyte; CTL; tumour rejection; viral infection; cancer;
KW prostate cancer; hepatitis B; hepatitis C; AIDS; renal carcinoma;
KW vaccine; immunisation.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO9945954-A1.
XX
PD 16-SEP-1999.
XX
PF 13-MAR-1998; 98WO-US05039.
XX
PR 13-MAR-1998; 98WO-US05039.
XX
PA (EPIM-) EPIMUNE INC.
XX
PI Sette A, Kubo RT, Sidney J, Celis E, Grey HM, Southwood S;
XX

DR WPI; 1999-551214/46.
XX
XX New immunogenic peptides with HLA binding motif, useful in treatment
PT and diagnosis of cancers and viral diseases -
XX
XX Claim 1; Page 118; 150pp; English.
PS
XX
XX AAV45390 to AAV48214 represent specifically claimed immunogenic peptides
CC having a human major histocompatibility complex (MHC) Class I (also
CC known as human leukocyte antigen (HLA)) binding motif. The immunogenic
CC peptides can bind to a specific HLA allele (i.e. HLA-A subtypes
CC HLA-A2.1, A1, A3.2 or A24.1 or HLA-B or C) and induce a cytotoxic T cell
CC response against the antigen from which the peptide is derived.
CC Cytotoxic T lymphocytes (CTLs) which destroy antigen-bearing cells are
CC normally induced by an antigen in the form of a peptide fragment bound
CC to a HLA molecule, rather than the intact foreign antigen itself, and
CC are particularly important in tumour rejection and in fighting viral
CC infections. The peptides are therefore useful therapeutically to treat
CC or prevent viral infections and cancers in mammals (especially humans)
CC e.g. prostate cancer, hepatitis B and C, AIDS, and renal carcinoma.
CC They can be administered as vaccines to elicit an immune response in
CC individuals susceptible or otherwise at risk of viral infection or
CC cancer, or used to treat chronic or acute conditions. They are also
CC useful diagnostically, and can be used to induce a cytotoxic T cell
CC response, by contacting a cytotoxic T cell with the peptide e.g. to
CC produce CTLs ex vivo for infusion back into a patient. The
CC polynucleotides encoding the immunogenic peptides are also useful
CC therapeutically and for immunisation as above.
XX
SQ Sequence 9 AA;
Query Match 88.9%; Score 40; DB 20; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
OY 1 YLSGADLNL 9
Db 1 YLSGANLNL 9
RESULT 12
AAV09525
ID AAV09525 standard; peptide; 9 AA.
XX
AC AAV09525;
XX
DT 20-JUL-1999 (first entry)
XX
DE Carcinoembryonic antigen peptide agonist CAP-1.
XX
KW Carcinoembryonic antigen; CEA; human; agonist; antagonist;
KW immune response; carcinoma; gastrointestinal; breast; pancreatic;
KW bladder; ovarian; lung; prostatic; T cell proliferation; cancer;
KW adoptive transfer therapy; autoimmune reaction; immunotherapy.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO9919478-A1.
XX
PD 22-APR-1999.
XX
PF 22-SEP-1998; 98WO-US19794.
XX
PR 10-OCT-1997; 97US-0061589.
XX
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
XX
PI Barzaga E, Schlom J, Zaremba S;
XX
DR WPI; 1999-326544/27.
XX
PT Peptide agonists and antagonists of carcinomaembryonal antigen

XX Claim 1; Page 53; 72pp; English.
PS
XX
CC The present invention describes peptides (A) that comprise agonists (Ia)
CC or antagonists (Ib) of human carcinoembryonal antigen (CEA). (Ia) are
CC used in vaccines to kill or inhibit carcinoma cells that express CEA or
CC its epitopes, particularly for treating gastrointestinal, breast,
CC pancreatic, bladder, ovarian, lung or prostatic carcinoma. They can also
CC be used to proliferate T cells, e.g. from vaccinated subjects, for use
CC in adoptive transfer therapy. (Ib) are used to inhibit CEA-specific
CC immune responses, e.g. in vaccinated subjects, to prevent an autoimmune
CC reaction to cancer immunotherapy (i.e. to prevent attack on normal but
CC CEA-expressing cells). (Ia) are more active than native sequence (I) and
CC generate a highly specific and systemic anti-CEA response. Cytotoxic T
CC cells generated recognize both (Ia) and native CEA epitopes. The present
CC sequence represents a specifically claimed example of (Ia).
SQ Sequence 9 AA;

Query Match 88.9%; Score 40; DB 20; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLGGADLNL 9
ID 1 YLGGANLNL 9
DB

RESULT 13
AAB13749
ID AAB13749 standard; peptide; 9 AA.
XX
AC AAB13749;
XX
DT 02-FEB-2001 (first entry)
XX
DE Peptide fragment # 1 from human CEA.
XX
DE Human; T-cell; immune response; antigen; epitope; B7 family molecule;
KW Leukocyte function-associated antigen-3; LFA-3;
KW Intercellular adhesion molecule-1; ICAM-1; vaccine; immunotherapy;
KW colon polyp; Crohn's disease; ulcerative colitis; breast lesion;
KW tumour; CEA.
XX
OS Homo sapiens.
XX
PN WO200034494-A1.
XX
PD 15-JUN-2000.
XX
PF 12-NOV-1999; 99WO-US26866.
XX
PR 09-DEC-1998; 98US-0111582.
XX
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
XX (THER-) THERION BIOLOGICS CORP.
XX
PI Schlom J, Hodge J, Panicali D;
XX
DR WPI; 2000-431307/37.
XX
PT Novel recombinant vector useful as immunogens and vaccines for
PT stimulating and enhancing immunological responses to target cells and
PT antigens expresses multiple co-stimulatory molecules such as B7-1,
PT LFA-3, ICAM-1 -
XX
PS Claim 18; Page 35; 188pp; English.
XX
CC Costimulatory molecules have important roles in T-cell activation and
CC therefore the immune response. The present invention relates to
CC recombinant vectors which comprise of foreign nucleic acid sequences
CC encoding at least three costimulatory molecules: a B7 family molecule,
CC leukocyte function-associated antigen-3 (LFA-3, human CD58) and

CC Intercellular adhesion molecule-1 (ICAM-1, CD54) and optionally a foreign
CC gene encoding a target antigen or immunological epitope. The present
CC sequence is one such target antigen used in the present invention. The
CC present sequence is a tumour-associated antigen. The vector of the
CC present invention would be useful for providing an enhanced immune
CC response to the present target antigen. The vector of the present
CC invention may therefore be useful in immunotherapy for treating or
CC preventing diseases caused by viruses, bacteria, protozoans, parasites,
CC premalignant cells and tumour cells. The recombinant vector can be used
CC to treat or prevent preneoplastic or hyperplastic states such as colon
CC polyps, Crohn's disease, ulcerative colitis and breast lesions.
XX
SQ Sequence 9 AA;

Query Match 88.9%; Score 40; DB 21; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLGGADLNL 9
DB 1 YLGGANLNL 9

RESULT 14
AAB82776
ID AAB82776 standard; Protein; 9 AA.
XX
AC AAB82776;
XX
DT 29-OCT-2001 (first entry)
XX
DE Carcinoembryonic antigen peptide.
XX
KW Telomerase reverse transcriptase; hTERT; human;
KW cytotoxic T lymphocyte; major histocompatibility complex; cancer;
KW tumour; human leucocyte antigen; HLA-A2.1; vaccine;
KW carcinoembryonic antigen.
XX
OS Homo sapiens.
XX
PN WO200160391-A1.
XX
PD 23-AUG-2001.
XX
PF 15-FEB-2001; 2001WO-US05143.
XX
PR 15-FEB-2000; 2000US-0182685.
XX PR 15-FEB-2001; 2001US-0182685.
XX
PA (REGC) UNIV CALIFORNIA.
XX
PI Zanetti M;
XX
DR WPI; 2001-536552/59.
XX
PT Vaccine for initiating and enhancing a cytotoxic T lymphocyte response,
PT for treating cancers or tumours or for inducing immune response against
PT tumours, comprises a telomerase reverse transcriptase peptide -
XX
PS Example 1; Page 12; 52pp; English.
XX
CC The present sequence is that of a carcinoembryonic antigen peptide
CC comprising amino acid residues 571-579. The peptide was used as a
CC reference peptide in comparison with human telomerase reverse
CC transcriptase (hTERT) HLA-A2.1+ restricted peptide p540 (see
CC AAB82772) in a HLA-A2.1 binding/stabilisation assay. The induction
CC of CTL responses in vitro and in vivo, and the susceptibility to
CC lysis of tumour cells of various origins by hTERT CTL suggest that
CC hTERT could serve as a universal cancer vaccine for humans. A
CC claimed universal vaccine for treating tumours of any origin
CC comprises at least 1 hTERT peptide. The peptide is 7-15 amino
CC acid residues in length and may be modified to enhance binding to
CC the major histocompatibility complex. Also claimed is a method for

CC inducing and enhancing a CTL response against cancer cells, involving
CC harvesting blood leucocytes, pulsing with hTfT, and contacting
CC cancer cells with the pulsed leucocytes. A method for targeting
CC CTL to tumour cells is also claimed, and involves administering a
CC hTfT peptide to a mammal, especially a cancer patient.
XX

SQ Sequence 9 AA;

Query Match 88.9%; Score 40; DB 22; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLGGADLNL 9
1 YLGGADLNL 9
Db 1 YLGGADLNL 9

RESULT 15
AAE05123
ID AAE05123 standard; peptide; 9 AA.

AC AAE05123;

DT 18-SEP-2001 (first entry)

DE Carcinoembryonic antigen (CEA) peptide, CAP-1.

KW Tumour-associated antigen; TAA; cytostatic; vaccine; gene therapy;
KW immune response; tetanus toxoid; TT; diphtheria toxoid; DT; prophylactic;
KW cancer; therapeutic; carcinoembryonic antigen; CEA.

OS Unidentified.

PN WO200149317-A2.

PD 12-JUL-2001.

PF 05-JAN-2001; 2001WO-CA00005.

PR 05-JAN-2000; 2000US-0174587.

PA (AVET) AVENTIS PASTEUR LTD.

PI Emtage P, Barber BH, Sambhara S, Sia CDY;

DR WPI; 2001-441790/47.

PT Enhancing immune response to antigen such as tumor antigen for treating
PT cancer in an animal involves administering an inducing agent to the
PT animal followed by administering inducing agent-antigen mixture -

PS Example 2; Page 31; 62pp; English.

CC The invention relates to a method of enhancing an immune response against
CC tumour-associated antigens (TAAs), such as GPI00 and carcinoembryonic
CC antigen (CEA) in an animal. The method involves priming of the animal
CC with an inducing agent such as tetanus toxoid (TT) or diphtheria toxoid
CC (DT), subsequently followed by administration of an inducing agent-
CC antigen mixture. The method provides the enhancement or augmentation of
CC the immune response to the antigen and/or improves a vaccination protocol
CC by allowing use of less antigen. The immunisation of the animal with
CC tumour-associated antigen is useful for the prophylactic or therapeutic
CC treatment of cancer. The present sequence is carcinoembryonic antigen
CC (CEA) peptide fragment related to the invention.
XX

SQ Sequence 9 AA;

Query Match 88.9%; Score 40; DB 22; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLGGADLNL 9
1 YLGGADLNL 9

Db 1 YLGGADLNL 9

Search completed: January 12, 2004, 14:28:23
Job time : 33.25 secs

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OM protein - protein search, using sw model

Run on: January 12, 2004, 14:21:08 ; Search time 32.25 Seconds
(without alignments)
44.296 Million cell updates/sec

Title: US-09-529-121A-4
Perfect score: 45
Sequence: 1 YLSGANINL 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1107863 seqs, 158726573 residues

Total number of hits satisfying chosen parameters: 179625

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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- 19: /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1998.DAT.*
- 20: /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1999.DAT.*
- 21: /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA2000.DAT.*
- 22: /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA2001.DAT.*
- 23: /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA2002.DAT.*
- 24: /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA2003.DAT.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	45	100.0	9	20	AAV09528	Carcinoembryonic a
2	43	95.6	9	18	AAW39723	Human carcina-embr
3	43	95.6	9	19	AAW77134	CEA synthetic pept
4	43	95.6	9	19	AAW70045	CEA derived HLA-A2
5	43	95.6	9	20	AAV47655	Immunogenic peptid
6	43	95.6	9	20	AAV09525	Carcinoembryonic a
7	43	95.6	9	21	AAAB13749	Peptide fragment #
8	43	95.6	9	22	AAAB82776	Carcinoembryonic a
9	43	95.6	9	22	AAE05123	Carcinoembryonic a

10	43	95.6	9	22	AAE02673	Human CEA epitopic
11	43	95.6	9	22	AAE00463	Human tumour CEA e
12	43	95.6	9	23	AAE26805	Human HLA-A2.1 res
13	43	95.6	9	23	ABG79073	Human CEA class I
14	43	95.6	9	23	AAV95893	Immunogenic peptid
15	43	95.6	9	23	AAE19088	HLA-A24 restricted
16	40	88.9	9	20	AAV09527	Carcinoembryonic a
17	40	88.9	9	21	AAV54173	HLA binding peptid
18	40	88.9	9	22	AAU26560	Human leukocyte An
19	40	88.9	9	22	AAAB9681	HLA A2 binding CTL
20	38	84.4	9	20	AAV09526	Carcinoembryonic a
21	38	84.4	9	21	AAAB13750	Peptide fragment #
22	38	84.4	9	22	AAE05124	Modified carcinoem
23	38	84.4	9	22	AAAB97818	Carcinoembryonic a
24	38	84.4	9	23	AAAB47917	Modified CEA epit
25	38	84.4	9	23	AAE19089	HLA-A24 restricted
26	37	82.2	9	22	AAAB75854	Peptide comprising
27	36	80.0	9	17	AAW00680	Tumour associated
28	34	75.6	9	20	AAV09529	Carcinoembryonic a
29	31	68.9	9	23	AAU82064	CEA antigenic pept
30	27	60.0	9	17	AAW00690	NCA analogue of re
31	26	57.8	9	22	AAU23920	Human MHC class I
32	26	57.8	9	22	AAU24043	Human MHC class I
33	26	57.8	9	22	AAU24335	Human MHC class I
34	26	57.8	9	24	ABJ19952	MHC binding peptid
35	23	51.1	9	19	AAW54298	Human cytohesin-1
36	23	51.1	9	21	AAAB26339	Human CASB618 prot
37	23	51.1	9	23	AAW49862	Human D40 associat
38	23	51.1	9	24	ABP71902	R. erythropolis AN
39	23	51.1	9	24	ABP71908	D. radiodurans crt
40	22	48.9	7	21	AAAB27207	Reporter gene cons
41	22	48.9	7	22	AAU09600	Novel antiarrhythm
42	22	48.9	8	21	AAAB28155	Linker between thy
43	22	48.9	8	22	ABP18160	HIV B58 super moti
44	22	48.9	9	18	AAW19861	Fragment of enzyme
45	22	48.9	9	21	AAAB26327	Human CASB618 prot

ALIGNMENTS

RESULT 1	
AAV09528	standard; peptide; 9 AA.
ID	AAV09528
XX	AAV09528;
AC	
XX	20-JUL-1999 (first entry)
DT	
XX	
DE	Carcinoembryonic antigen peptide agonist SEQ ID NO:4.
XX	
KW	Carcinoembryonic antigen; CEA; human; agonist; antagonist;
KW	immune response; carcinoma; gastrointestinal; breast; pancreatic;
KW	bladder; ovarian; lung; prostatic; T cell proliferation; cancer;
KW	adoptive transfer therapy; autoimmune reaction; immunotherapy.
XX	
OS	Homo sapiens.
OS	Synthetic.
XX	
PN	WO9919478-A1.
XX	
PD	22-APR-1999.
XX	
PF	22-SEP-1998; 98WO-US19794.
XX	
PR	10-OCT-1997; 97US-0061589.
XX	
PA	(USSH) US DEPT HEALTH & HUMAN SERVICES.
XX	
PI	Barzaga E, Schlom J, Zaremba S;
XX	
DR	WPI; 1999-326544/27.
XX	

PT Peptide agonists and antagonists of carcinoembryonal antigen
XX
PS Claim 5; Page 53; 72pp; English.
XX
CC The present invention describes peptides (A) that comprise agonists (Ia) or antagonists (Ib) of human carcinoembryonal antigen (CEA). (Ia) are used in vaccines to kill or inhibit carcinoma cells that express CEA or its epitopes, particularly for treating gastrointestinal, breast, pancreatic, bladder, ovarian, lung or prostatic carcinoma. They can also be used to proliferate T cells, e.g. from vaccinated subjects, for use in adoptive transfer therapy. (Ib) are used to inhibit CEA-specific immune responses, e.g. in vaccinated subjects, to prevent an autoimmune reaction to cancer immunotherapy (i.e. to prevent attack on normal but CEA-expressing cells). (Ia) are more active than native sequence (I) and generate a highly specific and systemic anti-CEA response. Cytotoxic T cells generated recognize both (Ia) and native CEA epitopes. The present sequence represents a specifically claimed example of (Ia).
CC
XX Sequence 9 AA;
SQ
Query Match 100.0%; Score 45; DB 20; Length 9;
Best Local Similarity 100.0%; Pred. No. 9.3e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 YLSGANINL 9
Db 1 YLSGANINL 9
RESULT 2
AAW39723
ID AAW39723 standard; peptide; 9 AA.
XX
AC AAW39723;
XX
DT 11-JUN-1998 (first entry)
XX
DE Human carcina-embryonic antigen (CEA) peptide (pos. 571-579).
XX
DE T cell epitope; immune response; human leukocyte antigen; HLA Class I;
KW vaccine; immunogenic; major histocompatibility complex; MHC; B cell;
KW disease; anti-tumour; anti-viral.
XX
OS Homo sapiens.
XX
PN WO9741440-A1.
XX
PD 06-NOV-1997.
XX
PF 28-APR-1997; 97WO-NL00229.
XX
PR 23-DEC-1996; 96EP-0203670.
PR 26-APR-1996; 96EP-0201145.
XX
PA (UYLE-) RIJKSUNIV LEIDEN.
PA (SCIS-) SCT SEED CAPITAL INVESTMENTS BV.
XX
PI Kast WM, Melief CJM, Offringa R, Toes REM, Van Der Burg SH;
XX WPI; 1997-549891/50.
XX
PT Method of selecting T cell peptide epitope(s) - by measuring the
PT stability of HLA class I-peptide complexes on intact B cells
XX
PS Example 3; Page 85; 109pp; English.
XX
CC Peptides AAW39430-W39734 are used in a novel method for the selection of
CC immunogenic T-cell peptide epitopes present in polypeptide antigens. The
CC method involves the identification of peptide sequences capable of
CC binding to an HLA (human leukocyte antigen) class I molecule and
CC measuring the binding of this epitope peptide to the HLA class I
CC peptide. The stability of binding of the peptide and MHC (major
CC histocompatibility complex) class I molecule is measured on intact human

CC B cells carrying the MHC molecule at their cell surfaces. The method can
CC be used to select peptide epitopes for generating vaccines against a
CC disease associated with the polypeptide, e.g. cancers or AIDS. The
CC peptide epitopes are especially T-cell peptide epitopes with strong
CC anti-tumour and anti-viral immune responses. Peptide AAW39723 is derived
CC from the human carcino-embryonic antigen (CEA) and has the ability to
CC bind to the human MHC Class I allele HLA-A2.1.
XX
SQ Sequence 9 AA;
Query Match 95.6%; Score 43; DB 18; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 1 YLSGANINL 9
Db 1 YLSGANINL 9

RESULT 3
AAW77134
ID AAW77134 standard; peptide; 9 AA.
XX
AC AAW77134;
XX
DT 16-NOV-1998 (first entry)
XX
DE CEA synthetic peptide epitope 1.
XX
KW Tyrosinase; tyrosinase cytotoxic lymphocyte response;
KW cytotoxic T lymphocyte; cysteine-depleted; melanoma.
XX
OS Synthetic.
XX
PN WO9833810-A2.
XX
PD 06-AUG-1998.
XX
PF 29-JAN-1998; 98WO-US01592.
XX
PR 30-JAN-1997; 97US-0037781.
XX
PA (UYVI-) UNIV VIRGINIA PATENT FOUND.
XX
PI Engelhard VH, Hunt DF, Kittlesen D, Slingluff CL;
XX WPI; 1998-437388/37.
XX
DR Disease specific immunogen - comprises disease specific cytotoxic T
XX lymphocyte epitope used to elicit melanoma specific CTL response
PT
PS Disclosure; Page 27; 93pp; English.
XX
XX The peptide epitope AAW77119-W77138 were created for human
CC tumour-specific cytotoxic T lymphocyte response. These peptides are
CC cysteine-depleted mutants of a native disease-specific CTL epitope. The
CC cysteine-depleted CTL epitopes elicit a stronger or more specific CTL
CC response than the native epitope. The epitopes can be used in a
CC disease-specific immunogen to protect a mammal against disease in
CC particular melanomas. The peptides may also be used to screen a sample
CC for the presence of an antigen with the same epitope, or with a different
CC cross-reactive epitope.
XX
SQ Sequence 9 AA;
Query Match 95.6%; Score 43; DB 19; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 1 YLSGANINL 9
Db 1 YLSGANINL 9

```
RESULT 4
AAW70045
ID AAW70045 standard; peptide; 9 AA.
XX
AC AAW70045;
XX
DT 22-OCT-1998 (first entry)
XX
DE CEA derived HLA-A2.1 binding peptide 2 (residues 605-613).
XX
KM Cytotoxic T lymphocyte; CTL; major histocompatibility complex; MHC;
KM human leukocyte antigen; HLA; tumour associated antigen; cancer;
KM antigen presenting cell; APC; immunogenic peptide; immune disorder;
KM viral infection; AIDS; hepatitis; bacterial infection; malaria; CEA;
KM fungal infection; tuberculosis; melanoma; carcinoembryonic antigen.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO9833888-A1.
XX
PD 06-AUG-1998.
XX
PF 30-JAN-1998; 98WO-US01959.
XX
PR 31-JAN-1997; 97US-0036696.
XX
PA (EPIM-) EPIMMUNE INC.
XX
PI Celis E, Sette A, Sidney J, Southwood S, Tsai V;
XX
DR WPI; 1998-437445/37.
XX
PT Production of antigen-specific cytotoxic T cells - by incubating
PT immunogenic peptide(s) from antigen that binds class I major
PT histocompatibility complex molecules with pre-treated antigen
PT presenting cells
XX
PS Example 6; Page 75; 104pp; English.
XX
CC Sequences shown in AAW70044 to AAW70052 represent peptides derived from
CC carcinoembryonic antigen (CEA). The peptides can bind to a human
CC leukocyte antigen (HLA), HLA-A2.1 and are used to exemplify the method
CC of invention of producing antigen-specific cytotoxic T cells (CTLs) in
CC vitro. The method comprises contacting immunogenic peptides from an
CC antigen that binds class I major histocompatibility complex (MHC)
CC molecules with antigen presenting cells (APCs) pretreated with
CC pretreatment growth factors, and incubating the APCs with purified CD8
CC cells in the presence of at least 2 incubation growth factors, thereby
CC producing antigen-specific CTLs. A method for specifically killing
CC target cells in a human patient is also provided which comprises
CC obtaining a fluid sample containing CTLs from a patient, contacting the
CC cytotoxic T cells with APCs pretreated with pre-treatment growth
CC factors, where the APCs comprise class I MHC molecules. The pretreated
CC APCs are incubated with the cytotoxic growth factors, thereby producing
CC activated CTLs which are contacted with a carrier to form a composition.
CC The composition can then be administered to the patient. The activated
CC CTLs can be used for treating cancers, immune disorders, viral
CC infections, AIDS, hepatitis, bacterial infection, fungal infection,
CC malaria or tuberculosis.
XX
SQ Sequence 9 AA;
QY
Query Match 95.6%; Score 43; DB 19; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 1 YLGGANINL 9
1 YLGGANINL 9
```

```
RESULT 5
AAV47655
ID AAV47655 standard; Peptide; 9 AA.
XX
AC AAV47655;
XX
DT 01-DEC-1999 (first entry)
XX
DE Immunogenic peptide having a human leukocyte antigen binding motif #2266.
XX
KM Human leukocyte antigen; binding; immunogenic; glycoprotein; MHC; HLA;
KM immune response; T cell activation; major histocompatibility complex;
KM cytotoxic T lymphocyte; CTL; tumour rejection; viral infection; cancer;
KM prostate cancer; hepatitis B; hepatitis C; AIDS; renal carcinoma;
KM vaccine; immunisation.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO9945954-A1.
XX
PD 16-SEP-1999.
XX
PF 13-MAR-1998; 98WO-US05039.
XX
PR 13-MAR-1998; 98WO-US05039.
XX
PA (EPIM-) EPIMMUNE INC.
XX
PI Sette A, Kubo RT, Sidney J, Celis E, Grey HM, Southwood S;
XX
DR WPI; 1999-551214/46.
XX
PT New immunogenic peptides with HLA binding motif, useful in treatment
PT and diagnosis of cancers and viral diseases -
XX
PS Claim 1; Page 118; 150pp; English.
XX
CC AAV45390 to AAV48214 represent specifically claimed immunogenic peptides
CC having a human major histocompatibility complex (MHC) Class I (also
CC known as human leukocyte antigen (HLA)) binding motif. The immunogenic
CC peptides can bind to a specific HLA allele (i.e. HLA-A subtypes
CC HLA-A2.1, A1, A3.2 or A24.1 or HLA-B or C) and induce a cytotoxic T cell
CC response against the antigen from which the peptide is derived.
CC Cytotoxic T lymphocytes (CTLs) which destroy antigen-bearing cells are
CC normally induced by an antigen in the form of a peptide fragment bound
CC to a HLA molecule, rather than the intact foreign antigen itself, and
CC are particularly important in tumour rejection and in fighting viral
CC infections. The peptides are therefore useful therapeutically to treat
CC e.g. prostate cancer, hepatitis B and C, AIDS, and renal carcinoma.
CC They can be administered as vaccines to elicit an immune response in
CC individuals susceptible or otherwise at risk of viral infection or
CC cancer, or used to treat chronic or acute conditions. They are also
CC useful diagnostically, and can be used to induce a cytotoxic T cell
CC response, by contacting a cytotoxic T cell with the peptide e.g. to
CC produce CTLs ex vivo for infusion back into a patient. The
CC polynucleotides encoding the immunogenic peptides are also useful
CC therapeutically and for immunisation as above.
XX
SQ Sequence 9 AA;
QY
Query Match 95.6%; Score 43; DB 20; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 1 YLGGANINL 9
1 YLGGANINL 9
```

RESULT 6
AAV09525

ID AAY09525 standard; peptide; 9 AA.
XX
AC AAY09525;
XX
DT 20-JUL-1999 (first entry)
XX
DE Carcinoembryonic antigen peptide agonist CAP-1.
XX
KW Carcinoembryonic antigen; CEA; human; agonist; antagonist;
KW immune response; carcinoma; gastrointestinal; breast; pancreatic;
KW bladder; ovarian; lung; prostatic; T cell proliferation; cancer;
KW adoptive transfer therapy; autoimmune reaction; immunotherapy.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO9919478-A1.
XX
PD 22-APR-1999.
XX
PF 22-SEP-1998; 98WO-US19794.
XX
PR 10-OCT-1997; 97US-0061589.
XX
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
XX
PI Barzaga E, Schlom J, Zaremba S;
XX
DR WPI; 1999-326544/27.
XX
PT Peptide agonists and antagonists of carcinoembryonal antigen
XX
PS Claim 1; Page 53; 72pp; English.
XX
CC The present invention describes peptides (A) that comprise agonists (Ia)
CC or antagonists (Ib) of human carcinoembryonal antigen (CEA). (Ia) are
CC used in vaccines to kill or inhibit carcinoma cells that express CEA or
CC its epitopes, particularly for treating gastrointestinal, breast,
CC pancreatic, bladder, ovarian, lung or prostatic carcinoma. They can also
CC be used to proliferate T cells, e.g. from vaccinated subjects, for use
CC in adoptive transfer therapy. (Ib) are used to inhibit CEA-specific
CC immune responses, e.g. in vaccinated subjects, to prevent an autoimmune
CC reaction to cancer immunotherapy (i.e. to prevent attack on normal but
CC CEA-expressing cells). (Ia) are more active than native sequence (I) and
CC generate a highly specific and systemic anti-CEA response. Cytotoxic T
CC cells generated recognize both (Ia) and native CEA epitopes. The present
CC sequence represents a specifically claimed example of (Ia).
XX
SQ Sequence 9 AA;
QY
Query Match 95.6%; Score 43; DB 20; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 1 YLSGANINL 9
1 YLSGANINL 9
RESULT 7
AAB13749 standard; peptide; 9 AA.
XX
AC AAB13749;
XX
DT 02-FEB-2001 (first entry)
XX
DE Peptide fragment # 1 from human CEA.
XX
KW Human; T-cell; immune response; antigen; epitope; B7 family molecule;
KW leukocyte function-associated antigen-3; LFA-3;
KW intercellular adhesion molecule-1; ICAM-1; vaccine; immunotherapy;
KW colon polyp; Crohn's disease; ulcerative colitis; breast lesion;
XX

KW tumour; CEA.
XX
OS Homo sapiens.
XX
PN WO200034494-A1.
XX
PD 15-JUN-2000.
XX
PF 12-NOV-1999; 99WO-US26866.
XX
PR 09-DEC-1998; 98US-0111582.
XX
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
PA (THER-) THERION BIOLOGICS CORP.
XX
PI Schlom J, Hodge J, Panicali D;
XX
DR WPI; 2000-431307/37.
XX
PT Novel recombinant vector useful as immunogens and vaccines for
PT stimulating and enhancing immunological responses to target cells and
PT antigens expresses multiple co-stimulatory molecules such as B7-1,
PT LFA-3, ICAM-1 -
XX
PS Claim 18; Page 35; 188pp; English.
XX
CC Costimulatory molecules have important roles in T-cell activation and
CC therefore the immune response. The present invention relates to
CC recombinant vectors which comprise of foreign nucleic acid sequences
CC encoding at least three costimulatory molecules: a B7 family molecule,
CC leukocyte function-associated antigen-3 (LFA-3, human CD58) and
CC intercellular adhesion molecule-1 (ICAM-1, CD54) and optionally a foreign
CC gene encoding a target antigen or immunological epitope. The present
CC sequence is one such target antigen used in the present invention. The
CC present sequence is a tumour-associated antigen. The vector of the
CC present invention would be useful for providing an enhanced immune
CC response to the present target antigen. The vector of the present
CC invention may therefore be useful in immunotherapy for treating or
CC preventing diseases caused by viruses, bacteria, protozoans, parasites,
CC premalignant cells and tumour cells. The recombinant vector can be used
CC to treat or prevent preneoplastic or hyperplastic states such as colon
CC polyps, Crohn's disease, ulcerative colitis and breast lesions.
XX
SQ Sequence 9 AA;
QY
Query Match 95.6%; Score 43; DB 21; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 1 YLSGANINL 9
1 YLSGANINL 9
RESULT 8
AAB82776 standard; Protein; 9 AA.
XX
AC AAB82776;
XX
DT 29-OCT-2001 (first entry)
XX
DE Carcinoembryonic antigen peptide.
XX
KW Telomerase reverse transcriptase; hTERT; human;
KW cytotoxic T lymphocyte; major histocompatibility complex; cancer;
KW tumour; human leucocyte antigen; HLA-A2.1; vaccine;
KW carcinoembryonic antigen.
XX
OS Homo sapiens.
XX
PN WO200160391-A1.
XX

PD 23-AUG-2001.
XX
XX 15-FEB-2001; 2001WO-US05143.
PF
XX 15-FEB-2000; 2000US-0182685.
PR 15-FEB-2001; 2001US-0182685.
XX
PA (REGC) UNIV CALIFORNIA.
XX
XX Zanetti M;
PI
XX WPI; 2001-536552/59.
DR
XX
XX
PT Vaccine for initiating and enhancing a cytotoxic T lymphocyte response,
PT for treating cancers or tumours or for inducing immune response against
PT tumours, comprises a telomerase reverse transcriptase peptide -
XX
XX Example 1; Page 12; 52pp; English.
PS
XX The present sequence is that of a carcinoembryonic antigen peptide
CC comprising amino acid residues 571-579. The peptide was used as a
CC reference peptide in comparison with human telomerase reverse
CC transcriptase (hTERT) HLA-A2.1+ restricted peptide p540 (see
CC AAB82772) in a HLA-A2.1 binding/stabilisation assay. The induction
CC of CTL responses in vitro and in vivo, and the susceptibility to
CC lysis of tumour cells of various origins by hTERT CTL suggest that
CC hTERT could serve as a universal cancer vaccine for humans. A
CC claimed universal vaccine for treating tumours of any origin
CC comprises at least 1 hTERT peptide. The peptide is 7-15 amino
CC acid residues in length and may be modified to enhance binding to
CC the major histocompatibility complex. Also claimed is a method for
CC inducing and enhancing a CTL response against cancer cells, involving
CC harvesting blood leucocytes, pulsing with hTERT, and contacting
CC cancer cells with the pulsed leucocytes. A method for targeting
CC CTL to tumour cells is also claimed, and involves administering a
CC hTERT peptide to a mammal, especially a cancer patient.
XX
SQ Sequence 9 AA;

Query Match 95.6%; Score 43; DB 22; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 1 YLSGANINL 9
Db 1 YLSGANLNL 9

RESULT 9
AAE05123
ID AAE05123 standard; peptide; 9 AA.
XX
XX AAE05123;
AC
XX
DT 18-SEP-2001 (first entry)
XX
DE Carcinoembryonic antigen (CEA) peptide, CAP-1.
XX
XX Tumour-associated antigen; TAA; cytostatic; vaccine; gene therapy;
KM immune response; tetanus toxoid; TT; diphtheria toxoid; DT; prophylactic;
KW cancer; therapeutic; carcinoembryonic antigen; CEA.
XX
XX Unidentified.
OS
XX
XX WO200149317-A2.
PN
XX
XX 12-JUL-2001.
PD
XX
XX 05-JAN-2001; 2001WO-CA00005.
PF
XX
XX 05-JAN-2000; 2000US-0174587.
PR
XX
XX (AVET) AVENTIS PASTEUR LTD.
PA

XX
PI Entage P, Barber BH, Sambhara S, Sia CDY;
XX
XX WPI; 2001-441790/47.
DR
XX
XX Enhancing immune response to antigen such as tumor antigen for treating
PT cancer in an animal involves administering an inducing agent to the
PT animal followed by administering inducing agent-antigen mixture -
XX
XX Example 2; Page 31; 62pp; English.
PS
XX
XX The invention relates to a method of enhancing an immune response against
CC tumour-associated antigens (TAAs), such as GP100 and carcinoembryonic
CC antigen (CEA) in an animal. The method involves priming of the animal
CC with an inducing agent such as tetanus toxoid (TT) or diphtheria toxoid
CC (DT), subsequently followed by administration of an inducing agent-
CC antigen mixture. The method provides the enhancement or augmentation of
CC the immune response to the antigen and/or improves a vaccination protocol
CC by allowing use of less antigen. The immunisation of the animal with
CC tumour-associated antigen is useful for the prophylactic or therapeutic
CC treatment of cancer. The present sequence is carcinoembryonic antigen
CC (CEA) peptide fragment related to the invention.
XX
SQ Sequence 9 AA;

Query Match 95.6%; Score 43; DB 22; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 1 YLSGANINL 9
Db 1 YLSGANLNL 9

RESULT 10
AAE02673
ID AAE02673 standard; peptide; 9 AA.
XX
XX AAE02673;
AC
XX
DT 06-AUG-2001 (first entry)
XX
DE Human CEA epitopic peptide.
XX
XX Human; cytostatic; antibacterial; antifungal; gene therapy; vaccine;
KM antiviral; tumour; epitope; glycoprotein; hepatitis B virus; HBV;
KW immune response; CTL; cytotoxic T lymphocyte; CEA; HLA;
KW human leucocyte antigen.
XX
XX Homo sapiens.
OS
XX
XX WO200127291-A1.
PN
XX
XX 19-APR-2001.
PD
XX
XX 29-SEP-2000; 2000WO-EP09902.
PF
XX
XX 12-OCT-1999; 99US-0158356.
PR
XX
XX (INSP) INST PASTEUR.
PA
XX
XX Firat H, Lemonnier F, Langlade-demoyen P;
PI
XX
XX WPI; 2001-282038/29.
DR
XX
XX New polynucleotide comprising at least one viral, fungal, bacterial, or
PT tumor epitope of an antigen, capable of inducing a cellular response -
PT
XX
XX Example 1; Page 23; 70pp; English.
PS
XX
XX The invention relates to polynucleotide containing at least a part of
CC the coding sequence of the middle glycoprotein of hepatitis B virus
CC (HBV) in which is inserted a DNA sequence coding for an epitope

CC comprising at least one viral, fungal, bacterial, or tumour epitope of
CC an antigen, capable of inducing a cellular response. Nucleic acids and
CC compositions of the invention are useful for inducing in vivo a CTL
CC (cytotoxic T lymphocyte) response against several epitopes of one
CC or more, bacterial, viral, fungal, or tumour antigens. A composition
CC of the invention produces an immune response against HIV antigen and
CC are used in the production of vaccines. The polynucleotides of the
CC invention are also used in gene therapy. The present sequence is
CC human CEA epitopic peptide. This peptide elicits strong
CC HLA (human leucocyte antigen)-A2.1-restricted CTL response in mice.
XX
SQ Sequence 9 AA;

Query Match 95.6%; Score 43; DB 22; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLSGANINL 9
| | | | | : | |
1 YLSGANINL 9
Db

RESULT 11
AAE00463
ID AAE00463 standard; peptide; 9 AA.
XX
AC AAE00463;
XX
DT 19-JUN-2001 (first entry)
XX
DE Human tumour CEA epitopic peptide.
XX
KW Human; tumour epitope; cytostatic; immunostimulant; gene therapy;
KW middle glycoprotein; Hepatitis B virus; HBV; cytotoxic response;
KW immune response; cytotoxic T lymphocyte; CTL; CEA; HLA;
KW human leucocyte antigen.
XX
OS Homo sapiens.
XX
PN WO200123577-A2.
XX
PD 05-APR-2001.
XX
PF 29-SEP-2000; 2000WO-EP09900.
XX
PR 30-SEP-1999; 99US-0156945.
XX
PA (INSP) INST PASTEUR.
XX
PI Firat H, Lemonnier F, Langlade-demoyen P, Michel M, Suhrbier AA;
XX
DR WPI; 2001-266164/27.
XX
PT Novel polynucleotide having DNA sequence encoding tumor antigen epitope
PT inserted in part of coding sequence of middle glycoprotein of hepatitis
PT B virus, used to induce immune response against tumor-specific antigen
PT
XX
XX Example 1; Page 13; 36pp; English.
XX
CC The present invention relates to an isolated or purified polynucleotide
CC containing a DNA sequence coding for at least one tumour epitope of a
CC tumour antigen inserted into part of the coding sequence of the middle
CC glycoprotein of the Hepatitis B virus (HBV). The polynucleotide is
CC useful for optionally evaluating cytotoxic responses in the individual's
CC lymphocyte population. It induces an immune response against at least
CC one tumour specific antigen or tissue specific antigen. The vector
CC comprising the polynucleotide induces in vivo, cellular and/or humoral
CC immune response. The composition comprising the polynucleotide induces
CC in vivo, cytotoxic T lymphocyte (CTL) against one or more antigens or
CC epitopes present on the hybrid protein. The polynucleotide is also
CC useful in gene therapy.
CC The present sequence is a human tumour CEA epitopic peptide. This

CC peptide elicits strong HLA (human leucocyte antigen)-A2.1-restricted
CC CTL response in mice.
XX
SQ Sequence 9 AA;

Query Match 95.6%; Score 43; DB 22; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLSGANINL 9
| | | | | : | |
1 YLSGANINL 9
Db

RESULT 12
AAE26805
ID AAE26805 standard; peptide; 9 AA.
XX
AC AAE26805;
XX
DT 13-DEC-2002 (first entry)
XX
DE Human HLA-A2.1 restricted CEA (carcinoembryonic Ag) peptide epitope.
XX
KW Human; cancer; breast cancer; ovarian cancer; melanoma; cell therapy;
KW epitope; human leucocyte antigen; HLA-A2.1.
XX
OS Homo sapiens.
XX
PN WO200265992-A2.
XX
PD 29-AUG-2002.
XX
PF 19-FEB-2002; 2002WO-US05748.
XX
PR 20-FEB-2001; 2001US-270252P.
XX
PA (ORTH) ORTHO-MCNEIL PHARM INC.
XX
PI Degraw J, Moriarty A, Leturcq DJ, Jackson MR, Peterson PA;
PI Helsinki M;
XX
DR WPI; 2002-667033/71.
XX
PT Treating a subject with cancer comprises combining the CD+8 cells,
PT which are stimulated with non-naturally occurring antigen-presenting
PT cell line, with adherent blood monocytes and inoculating the subject
PT with CD8+ suspension
XX
XX Example 2; Page 93; 99pp; English.
XX
PS The invention relates to a method of treating a subject with cancer. The
XX method involves combining the CD+8 cells, which are stimulated with non
CC naturally occurring antigen-presenting cell (mAPC) line, with adherent
CC blood monocytes and inoculating the subject with CD8+ suspension. The
CC method is useful for treating cancer e.g. ovarian cancer, breast cancer
CC and melanoma etc. It is also useful in cell therapy. The present sequence
CC is human leukocyte antigen A2 (HLA-A2).1 restricted peptide epitope used
CC to treat breast and ovarian cancer.
XX
SQ Sequence 9 AA;

Query Match 95.6%; Score 43; DB 23; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLSGANINL 9
| | | | | : | |
1 YLSGANINL 9
Db

RESULT 13
ABG79073

ID ABG79073 standard; Peptide; 9 AA.
XX
AC ABG79073;
XX
DT 15-NOV-2002 (first entry)
XX
DE Human CEA class I HLA widely expressed antigen peptide #1.
XX
KW Cell penetrating peptide; cancer; tumour; melanoma; thymoma; antigen;
KW lymphoma; sarcoma; lung cancer; non-Hodgkin's lymphoma; leukemia;
KW Hodgkin's lymphoma; uterine cancer; cervical cancer; bladder cancer;
KW kidney cancer; adenocarcinoma; breast cancer; prostate cancer;
KW ovarian cancer; pancreatic cancer; epitope; vaccine; dendritic cell;
KW tumour infiltrating lymphocyte; TIL; human leukocyte antigen; HLA;
KW cytostatic; human.
XX
OS Homo sapiens.
XX
PN WO200264057-A2.
XX
PD 22-AUG-2002.
XX
PF 15-FEB-2002; 2002WO-US05212.
XX
PR 15-FEB-2001; 2001US-268687P.
XX
PA (BAYU) BAYLOR COLLEGE MEDICINE.
XX
PI Wang R;
XX
DR WPI; 2002-627577/67.
XX
PT Novel composition for treating a disease in an animal, comprises an
PT immune effector cell and cell penetrating peptide associated with an
PT antigen or antibody -
XX
PS Disclosure; Page 17; 61pp; English.
XX
CC The invention relates to a composition (I) comprising an immune effector
CC cell and a cell penetrating peptide (CPP) associated with an antigen or
CC antibody. Also included are (1) a vaccine comprising (I), CPP
CC associated with an antigen, and a pharmaceutically acceptable carrier
CC and (2) preparing a composition for a disease, by providing (I)
CC and CPP associated with an antigen for disease, and introducing the
CC antigen-associated CPP to (I), where antigen enters into the cell.
CC The antigens are, for example, tumour antigen derived epitopes
CC recognised by tumour infiltrating lymphocytes (TIL) of HLA (human
CC leukocyte antigen) class I or II. The composition is useful for enhancing
CC immunity in an animal to a disease, by administering a mature dendritic
CC cell comprising CPP associated with an antigen to disease, to the animal,
CC such that following the administration, animal is protected from disease,
CC where the animal comprises both CD4+ and CD8+ T cells. It is also useful
CC for treating a disease (e.g. cancer, tumour, melanoma, thymoma,
CC lymphoma, sarcoma, lung cancer, non-Hodgkin's lymphoma, leukemia,
CC Hodgkin's lymphoma, uterine cancer, cervical cancer, bladder cancer,
CC kidney cancer, adenocarcinoma, breast cancer, prostate cancer,
CC ovarian cancer and pancreatic cancer). The animal is further subjected to
CC a cancer treatment including surgery, radiation, chemotherapy or gene
CC therapy. The administration of (I), preferably dendritic cell is prior
CC to, subsequent to or concurrent with, the cancer treatment. The present
CC sequence is a tumour antigen derived epitope for inclusion in the
CC composition of the invention.
XX
SQ Sequence 9 AA;

Query Match 95.6%; Score 43; DB 23; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLSGANINL 9
|||:|
Db 1 YLSGANINL 9

RESULT 14
AAU95893
ID AAU95893 standard; Peptide; 9 AA.
XX
AC AAU95893;
XX
DT 02-JUL-2002 (first entry)
XX
DE Immunogenic peptide with (HLA)-A2.1 binding site #106.
XX
KW HLA-A2.1 binding peptide; cytostatic; virucide; anti-HIV; hepatotropic;
KW human immunodeficiency virus; antiinflammatory; antibacterial; vaccine;
KW protozoacide; immunosuppressant; immunogenic peptide; T cell activation;
KW human leucocyte antigen binding site; cytotoxic T cell response;
KW viral infection; hepatitis; Epstein-Barr virus; papilloma virus;
KW human immunodeficiency virus; HIV; Kaposi sarcoma; Lassa fever virus;
KW cytomegalovirus; tumour; prostate cancer; renal carcinoma; lymphoma;
KW prostate-specific antigen; p53; carcino-embryonal antigen;
KW melanoma antigen; Mycobacterium tuberculosis; protozoa;
KW trypanosome surface antigen; condyloma acuminatum.
XX
OS Unidentified.
XX
PN WO200220616-A1.
XX
PD 14-MAR-2002.
XX
PF 01-SEP-2000; 2000WO-US24102.
XX
PR 01-SEP-2000; 2000WO-US24102.
XX
PA (EPIM-) EPIMMUNE INC.
XX
PI Grey HM, Sette A, Sidney J, Southwood S;
XX
DR WPI; 2002-351766/38.
XX
PT Immunogenic peptide with human leucocyte antigen-A2.1 binding site,
PT useful for treating e.g. viral infection or tumours -
XX
PS Claim 1; Page 27; 35pp; English.
XX
CC The invention describes a composition comprising an immunogenic peptide
CC having a human leucocyte antigen (HLA)-A2.1 binding site. The peptides
CC bind specifically to HLA-A2.1, to cause T cell activation and thus a
CC cytotoxic T cell response. The peptides and the nucleic acids that
CC encodes them, are used, in vivo or ex vivo, for treatment of viral
CC infections (hepatitis B or C; Epstein-Barr; human immune deficiency;
CC Kaposi sarcoma; human papilloma; Lassa fever or cytomegaloviruses);
CC tumours including prostate cancer, renal carcinoma and lymphoma (where
CC directed to prostate-specific antigen, p53, carcino-embryonal antigen,
CC Her2/neu or melanoma antigens); infection by Mycobacterium tuberculosis
CC or protozoa (directed to trypanosome surface antigen); and condyloma
CC acuminatum. The peptides are suitable for use in peptide-based
CC vaccines. This sequence represents an immunogenic peptide with the
CC human leucocyte antigen (HLA)-A2.1 binding site, described in the
CC invention.
XX
SQ Sequence 9 AA;

Query Match 95.6%; Score 43; DB 23; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLSGANINL 9
|||:|
Db 1 YLSGANINL 9

RESULT 15
AAE19088
ID AAE19088 standard; peptide; 9 AA.

Db 1 YUSGANLNL 9
Search completed: January 12, 2004, 14:28:24
Job time : 33.25 secs

XX AAE19088;
AC
XX
XX 21-MAY-2002 (first entry)
XX
XX
DE HLA-A24 restricted target antigen CEA immunological epitope #2.
XX
KW Human leukocyte antigen; HLA; pharmaceutical composition; target antigen;
KW immunological epitope; replication-defective virus; RDV; immune response;
KW chemotherapy; granulocyte-monocyte-colony stimulating factor; cytostatic;
KW GM-CSF; MHC; major histocompatibility complex; tumour; head; pancreatic;
KW neck; breast; prostate; colorectal; melanoma; myeloidysplastic syndrome;
KW metastatic breast skin lesion; corticosteroid therapy; erythropoietin;
KW cytopenia; neutropenia; vaccine; immunostimulant.
XX
XX Homo sapiens.
OS
XX WO200195919-A2.
PN
XX
XX 20-DEC-2001.
PD
XX
XX 15-JUN-2001; 2001WO-US19201.
PF
XX
XX 15-JUN-2000; 2000US-211717P.
PR
XX
XX (USSH) US DEPT HEALTH & HUMAN SERVICES.
PA (THER-) THERION BIOLOGICS CORP.
XX
XX
PI Schlom J, Greiner JW, Kass E, Panicali D;
XX
XX WPI; 2002-205852/26.
DR
XX
XX
PT Composition for enhancing immune responses, particularly anti-tumor
PT responses and treating neutropenia, cytopenia, comprises
PT replication-defective virus encoding granulocyte-monocyte-colony
PT stimulating factor -
XX
XX
PS Claim 9, Page 15; 118pp; English.
XX
XX The present invention relates to a pharmaceutical composition comprising
CC a replication-defective virus (RDV) encoding granulocyte-monocyte-colony
CC stimulating factor (GM-CSF). The invention is useful for enhancing cell-
CC mediated or humoral immune response in an individual, by enhancing
CC migration of APC expressing CD11c⁺/I-Ab⁺, major histocompatibility
CC complex (MHC) class II, at an injection site, regional lymph node at a
CC tumour site, APC proliferation or function, CD4⁺T or CD8⁺T cell
CC activation, interleukin (IL)-2, interferon (IFN)-gamma or tumour necrosis
CC factor (TNF)-alpha production or their combinations. The composition
CC enhances an antigen-specific T-cell response in an individual to a target
CC antigen or its immunological epitope and an anti-tumour response in an
CC individual with a head tumour, neck, breast, pancreatic, prostate,
CC colorectal or metastatic tumour or melanoma, or metastatic breast skin
CC lesion. The invention is further useful for treating neutropenia
CC resulting from chemotherapy, corticosteroid therapy, irradiation or an
CC infection, by raising the neutrophil count to normal levels and for
CC treating cytopenias in patients with myeloidysplastic syndrome in
CC combination with erythropoietin, by increasing neutrophil count and
CC erythroid precursors. The composition enhances immune response to
CC vaccines such as DPT, Td, DtaP, Hib, DtaP-Hib, MMR, Hepatitis A,
CC hepatitis B, Lyme's disease, influenza, tetavalent meningococcal
CC polysaccharide, pneumococcal polysaccharide, anthrax, cholera, plague,
CC yellow fever and Bacillus Calmette-Guerin vaccine. The present sequence
CC is human leukocyte antigen (HLA)-restricted target tumour antigen
CC immunological epitope.
XX
XX
SQ Sequence 9 AA;

Query Match 95.6%; Score 43; DB 23; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 1 YUSGANLNL 9
|||||:|

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OM protein - protein search, using sw model

Run on: January 12, 2004, 14:21:08 ; Search time 32.25 Seconds
(without alignments)
44.296 Million cell updates/sec

Title: US-09-529-121A-5
Perfect score: 48
Sequence: 1 YLGGACLNLT 9

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Searched: 1107863 seqs, 158726573 residues

Total number of hits satisfying chosen parameters: 179625

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Post-processing: Minimum Match 0%
Maximum Match 100%
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6: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1985.DAT.*
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8: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1987.DAT.*
9: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1988.DAT.*
10: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1989.DAT.*
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14: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1993.DAT.*
15: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1994.DAT.*
16: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1995.DAT.*
17: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1996.DAT.*
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19: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1998.DAT.*
20: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1999.DAT.*
21: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA2000.DAT.*
22: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA2001.DAT.*
23: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA2002.DAT.*
24: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA2003.DAT.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	48	100.0	9	20	AAV09529	Carcinoembryonic a
2	36	75.0	9	18	AAW39723	Human carcina-emb
3	36	75.0	9	19	AAW77134	CEA synthetic pept
4	36	75.0	9	19	AAW70045	CEA derived HLA-A2
5	36	75.0	9	20	AAV47655	Immunogenic peptid
6	36	75.0	9	20	AAV09525	Carcinoembryonic a
7	36	75.0	9	20	AAV09526	Carcinoembryonic a
8	36	75.0	9	21	AAW13749	Peptide fragment #
9	36	75.0	9	21	AAW13750	Peptide fragment #

10	36	75.0	9	22	AAB82776	Carcinoembryonic a
11	36	75.0	9	22	AAE05123	Carcinoembryonic a
12	36	75.0	9	22	AAE05124	Modified carcinoem
13	36	75.0	9	22	AAB97818	Carcinoembryonic a
14	36	75.0	9	22	AAE02673	Human CEA epitopic
15	36	75.0	9	22	AAE00463	Human tumour CEA e
16	36	75.0	9	23	AAE26805	Human HLA-A2.1 res
17	36	75.0	9	23	ABG79073	Human CEA class I
18	36	75.0	9	23	AAU95893	Immunogenic peptid
19	36	75.0	9	23	AAB47917	Modified CEA epito
20	36	75.0	9	23	AAE19088	HLA-A24 restricted
21	36	75.0	9	23	AAE19089	HLA-A24 restricted
22	34	70.8	9	20	AAV09527	Carcinoembryonic a
23	34	70.8	9	20	AAV09528	Carcinoembryonic a
24	33	68.8	9	21	AAV54173	HLA binding peptid
25	33	68.8	9	22	AAU26560	Human leukocyte An
26	33	68.8	9	22	AAB99681	HLA A2 binding CTL
27	30	62.5	9	22	AAB75854	Tumour associated
28	29	60.4	9	17	AAW00680	Peptide comprising
29	26	54.2	7	19	AAW76240	Bacterial periplas
30	26	54.2	9	21	AAV82882	Teratocarcinoma-de
31	26	54.2	9	23	AAO14704	Human cripto prote
32	24	50.0	7	20	AAV49030	Membrane dipeptida
33	24	50.0	7	20	AAV39584	CTLA-4 VLD CDRI re
34	24	50.0	9	19	AAW70043	MAGE 3 antigen der
35	24	50.0	9	20	AAV47153	Immunogenic peptid
36	24	50.0	9	20	AAV47480	Immunogenic peptid
37	24	50.0	9	20	AAV47562	Immunogenic peptid
38	24	50.0	9	20	AAV47563	Immunogenic peptid
39	24	50.0	9	22	AAV62724	Amno acid sequenc
40	24	50.0	9	22	AAV84682	MAGE3 crossbinding
41	24	50.0	9	22	AAV84848	MAGE3 HLA-A2 super
42	24	50.0	9	23	AAO14721	Human cripto prote
43	24	50.0	9	23	AAU82064	CEA antigenic pept
44	23	47.9	6	17	AAV01944	Fragment of the EG
45	23	47.9	6	22	AAU01136	Unknown peptide #3

ALIGNMENTS

RESULT 1	AAV09529	standard; peptide; 9 AA.
ID	AAV09529;	
AC	AAV09529;	
XX	20-JUL-1999	(first entry)
DT		
XX		
DE	Carcinoembryonic antigen peptide agonist SEQ ID NO:5.	
XX		
KW	Carcinoembryonic antigen; CEA; human; agonist; antagonist;	
KW	immune response; carcinoma; gastrointestinal; breast; pancreatic;	
KW	bladder; ovarian; lung; prostatic; T cell proliferation; cancer;	
KW	adoptive transfer therapy; autoimmune reaction; immunotherapy.	
XX		
OS	Homo sapiens.	
OS	Synthetic.	
XX		
PN	WO9919478-A1.	
XX		
PD	22-APR-1999.	
XX		
PF	22-SEP-1998;	98WO-US19794.
XX		
PR	10-OCT-1997;	97US-0061589.
XX		
PA	(USSH) US DEPT HEALTH & HUMAN SERVICES.	
XX		
PI	Barzaga E, Schlom J, Zaremba S;	
XX		
DR	WPI; 1999-326544/27.	
XX		

PT Peptide agonists and antagonists of carcinoembryonal antigen
XX
PS Claim 5; Page 53; 72pp; English.
XX
CC The present invention describes peptides (A) that comprise agonists (Ia)
CC or antagonists (Ib) of human carcinoembryonal antigen (CEA). (Ia) are
CC used in vaccines to kill or inhibit carcinoma cells that express CEA or
CC its epitopes, particularly for treating gastrointestinal, breast,
CC pancreatic, bladder, ovarian, lung or prostatic carcinoma. They can also
CC be used to proliferate T cells, e.g. from vaccinated subjects, for use
CC in adoptive transfer therapy. (Ib) are used to inhibit CEA-specific
CC immune responses, e.g. in vaccinated subjects, to prevent an autoimmune
CC reaction to cancer immunotherapy (i.e. to prevent attack on normal but
CC CEA-expressing cells). (Ia) are more active than native sequence (I) and
CC generate a highly specific and systemic anti-CEA response. Cytotoxic T
CC cells generated recognize both (Ia) and native CEA epitopes. The present
CC sequence represents a specifically claimed example of (Ia).
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 48; DB 20; Length 9;
Best Local Similarity 100.0%; Pred. No. 9.3e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLSGACLNL 9
|||
1 YLSGACLNL 9

RESULT 2
AAW39723 standard; peptide; 9 AA.

AC AAW39723;

DT 11-JUN-1998 (first entry)

DE Human carcina-embryonic antigen (CEA) peptide (pos. 571-579).

KW T cell epitope; immune response; human leukocyte antigen; HLA Class I;
KW vaccine; immunogenic; major histocompatibility complex; MHC; B cell;
KW disease; anti-tumour; anti-viral.

OS Homo sapiens.

PN WO9741440-A1.

PD 06-NOV-1997.

PF 28-APR-1997; 97WO-NL00229.

PR 23-DEC-1996; 96EP-0203670.

PR 26-APR-1996; 96EP-0201145.

PA (UYLE-) RIJKSUNIV LEIDEN.

PA (SCIS-) SCI SEED CAPITAL INVESTMENTS BV.

PI Kast WM, Melief CJM, Offringa R, Toes REM, Van Der Burg SH;

DR WPI; 1997-549891/50.

PT Method of selecting T cell peptide epitope(s) - by measuring the
PT stability of HLA class I-peptide complexes on intact B cells

PS Example 3; Page 85; 109pp; English.

CC Peptides AAW39430-W39734 are used in a novel method for the selection of
CC immunogenic T-cell peptide epitopes present in polypeptide antigens. The
CC method involves the identification of peptide sequences capable of
CC binding to an HLA (human leukocyte antigen) class I molecule and
CC measuring the binding of this epitope peptide to the HLA class I
CC peptide. The stability of binding of the peptide and MHC (major
CC histocompatibility complex) class I molecule is measured on intact human

CC B cells carrying the MHC molecule at their cell surfaces. The method can
CC be used to select peptide epitopes for generating vaccines against a
CC disease associated with the polypeptide, e.g. cancers or AIDS. The
CC peptide epitopes are especially T-cell peptide epitopes with strong
CC anti-tumour and anti-viral immune responses. Peptide AAW39723 is derived
CC from the human carcino-embryonic antigen (CEA) and has the ability to
CC bind to the human MHC Class I allele HLA-A2.1.
XX

SQ Sequence 9 AA;

Query Match 75.0%; Score 36; DB 18; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 YLSGACLNL 9
|||
1 YLSGANLNL 9

RESULT 3

AAW77134

ID AAW77134 standard; peptide; 9 AA.

AC AAW77134;

DT 16-NOV-1998 (first entry)

DE CEA synthetic peptide epitope 1.

KW Tyrosinase; tyrosinase cytotoxic lymphocyte response;
KW cytotoxic T lymphocyte; cysteine-depleted; melanoma.

OS Synthetic.

PN WO9833810-A2.

PD 06-AUG-1998.

PF 29-JAN-1998; 98WO-US01592.

PR 30-JAN-1997; 97US-0037781.

PA (UYVI-) UNIV VIRGINIA PATENT FOUND.

PI Engelhard VH, Hunt DF, Kittlesen D, Slingluff CL;

DR WPI; 1998-437388/37.

PT Disease specific immunogen - comprises disease specific cytotoxic T
PT lymphocyte epitope used to elicit melanoma specific CTL response
PS Disclosure; Page 27; 93pp; English.

CC The peptide epitope AAW77119-W77138 were created for human
CC tumour-specific cytotoxic T lymphocyte response. These peptides are
CC cysteine- depleted mutants of a native disease-specific CTL epitope. The
CC cysteine- depleted CTL epitopes elicit a stronger or more specific CTL
CC response than the native epitope. The epitopes can be used in a
CC disease-specific immunogen to protect a mammal against disease in
CC particular melanomas. The peptides may also be used to screen a sample
CC for the presence of an antigen with the same epitope, or with a different
CC cross-reactive epitope.

SQ Sequence 9 AA;

Query Match 75.0%; Score 36; DB 19; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 YLSGACLNL 9
|||
1 YLSGANLNL 9

```
RESULT 4
AAW70045
ID AAW70045 standard; peptide; 9 AA.
XX
AC AAW70045;
XX
DT 22-OCT-1998 (first entry)
XX
DE CEA derived HLA-A2.1 binding peptide 2 (residues 605-613).
XX
KW Cytotoxic T lymphocyte; CTL; major histocompatibility complex; MHC;
KW human leukocyte antigen; HLA; tumour associated antigen; cancer;
KW antigen presenting cell; APC; immunogenic peptide; immune disorder;
KW viral infection; AIDS; hepatitis; bacterial infection; malaria; CEA;
KW fungal infection; tuberculosis; melanoma; carcinoembryonic antigen.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO9833888-A1.
XX
PD 06-AUG-1998.
XX
PF 30-JAN-1998; 98WO-US01959.
XX
PR 31-JAN-1997; 97US-0036696.
XX
PA (EPIM-) EPIMMUNE INC.
XX
PI Celis E, Sette A, Sidney J, Southwood S, Tsai V;
XX
DR WPI; 1998-437445/37.
XX
PT Production of antigen-specific cytotoxic T cells - by incubating
PT immunogenic peptide(s) from antigen that binds class I major
PT histocompatibility complex molecules with pre-treated antigen
PT presenting cells
XX
PS Example 6; Page 75; 104pp; English.
XX
CC Sequences shown in AAW70044 to AAW70052 represent peptides derived from
CC carcinoembryonic antigen (CEA). The peptides can bind to a human
CC leukocyte antigen (HLA), HLA-A2.1 and are used to exemplify the method
CC of invention of producing antigen-specific cytotoxic T cells (CTLs) in
CC vitro. The method comprises contacting immunogenic peptides from an
CC antigen that binds class I major histocompatibility complex (MHC)
CC molecules with antigen presenting cells (APCs) pretreated with
CC pretreatment growth factors, and incubating the APCs with purified CD8
CC cells in the presence of at least 2 incubation growth factors, thereby
CC producing antigen-specific CTLs. A method for specifically killing
CC target cells in a human patient is also provided which comprises
CC obtaining a fluid sample containing CTLs from a patient, contacting the
CC cytotoxic T cells with APCs pretreated with pre-treatment growth
CC factors, where the APCs comprise class I MHC molecules. The pretreated
CC APCs are incubated with the cytotoxic growth factors, thereby producing
CC activated CTLs which are contacted with a carrier to form a composition.
CC The composition can then be administered to the patient. The activated
CC CTLs can be used for treating cancers, immune disorders, viral
CC infections, AIDS, hepatitis, bacterial infection, fungal infection,
CC malaria or tuberculosis.
XX
SQ Sequence 9 AA;
QY
Query Match 75.0%; Score 36; DB 19; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 1 YLSGACTLNL 9
1 YLSGANLNL 9
```

```
RESULT 5
AAV47655
ID AAV47655 standard; peptide; 9 AA.
XX
AC AAV47655;
XX
DT 01-DEC-1999 (first entry)
XX
DE Immunogenic peptide having a human leukocyte antigen binding motif #2266.
XX
KW Human leukocyte antigen; binding; immunogenic; glycoprotein; MHC; HLA;
KW immune response; T cell activation; major histocompatibility complex;
KW cytotoxic T lymphocyte; CTL; tumour rejection; viral infection; cancer;
KW prostate cancer; hepatitis B; hepatitis C; AIDS; renal carcinoma;
KW vaccine; immunisation.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO9945954-A1.
XX
PD 16-SEP-1999.
XX
PF 13-MAR-1998; 98WO-US05039.
XX
PR 13-MAR-1998; 98WO-US05039.
XX
PA (EPIM-) EPIMMUNE INC.
XX
PI Sette A, Kubo RT, Sidney J, Celis E, Grey HM, Southwood S;
XX
DR WPI; 1999-551214/46.
XX
PT New immunogenic peptides with HLA binding motif, useful in treatment
PT and diagnosis of cancers and viral diseases -
XX
PS Claim 1; Page 118; 150pp; English.
XX
CC AAV45390 to AAV48214 represent specifically claimed immunogenic peptides
CC having a human major histocompatibility complex (MHC) Class I (also
CC known as human leukocyte antigen (HLA)) binding motif. The immunogenic
CC peptides can bind to a specific HLA allele (i.e. HLA-A subtypes
CC HLA-A2.1, A1, A3.2 or A24.1 or HLA-B or C) and induce a cytotoxic T cell
CC response against the antigen from which the peptide is derived.
CC Cytotoxic T lymphocytes (CTLs) which destroy antigen-bearing cells are
CC normally induced by an antigen in the form of a peptide fragment bound
CC to a HLA molecule, rather than the intact foreign antigen itself, and
CC are particularly important in tumour rejection and in fighting viral
CC infections. The peptides are therefore useful therapeutically to treat
CC or prevent viral infections and cancers in mammals (especially humans)
CC e.g. prostate cancer, hepatitis B and C, AIDS, and renal carcinoma.
CC They can be administered as vaccines to elicit an immune response in
CC individuals susceptible or otherwise at risk of viral infection or
CC cancer, or used to treat chronic or acute conditions. They are also
CC useful diagnostically, and can be used to induce a cytotoxic T cell
CC response, by contacting a cytotoxic T cell with the peptide e.g. to
CC produce CTLs ex vivo for infusion back into a patient. The
CC polynucleotides encoding the immunogenic peptides are also useful
CC therapeutically and for immunisation as above.
XX
SQ Sequence 9 AA;
QY
Query Match 75.0%; Score 36; DB 20; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 1 YLSGACTLNL 9
1 YLSGANLNL 9
```

RESULT 6
AAV09525

ID AAY09525 standard; peptide; 9 AA.
XX
AC AAY09525;
XX
DT 20-JUL-1999 (first entry)
XX
DE Carcinoembryonic antigen peptide agonist CAP-1.
XX
KW Carcinoembryonic antigen; CEA; human; agonist; antagonist;
KW immune response; carcinoma; gastrointestinal; breast; pancreatic;
KW bladder; ovarian; lung; prostatic; T cell proliferation; cancer;
KW adoptive transfer therapy; autoimmune reaction; immunotherapy.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO9919478-A1.
PD 22-APR-1999.
XX
PF 22-SEP-1998; 98WO-US19794.
XX
PR 10-OCT-1997; 97US-0061589.
XX
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
XX
PI Barzaga E, Schlom J, Zaremba S;
XX
DR WPI; 1999-326544/27.
XX
PT Peptide agonists and antagonists of carcinoembryonal antigen
PS Claim 1; Page 53; 72pp; English.
XX
XX The present invention describes peptides (A) that comprise agonists (Ia)
CC or antagonists (Ib) of human carcinoembryonal antigen (CEA). (Ia) are
CC used in vaccines to kill or inhibit carcinoma cells that express CEA or
CC its epitopes, particularly for treating gastrointestinal, breast,
CC pancreatic, bladder, ovarian, lung or prostatic carcinoma. They can also
CC be used to proliferate T cells, e.g. from vaccinated subjects, for use
CC in adoptive transfer therapy. (Ib) are used to inhibit CEA-specific
CC immune responses, e.g. in vaccinated subjects, to prevent an autoimmune
CC reaction to cancer immunotherapy (i.e. to prevent attack on normal but
CC CEA-expressing cells). (Ia) are more active than native sequence (I) and
CC generate a highly specific and systemic anti-CEA response. Cytotoxic T
CC cells generated recognize both (Ia) and native CEA epitopes. The present
CC sequence represents a specifically claimed example of (Ia).
XX
SQ Sequence 9 AA;
XX
Query Match 75.0%; Score 36; DB 20; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 1 YLGGACLNL 9
||| |||
DB 1 YLGGANLNL 9
RESULT 7
AAY09526
ID AAY09526 standard; peptide; 9 AA.
XX
AC AAY09526;
XX
DT 20-JUL-1999 (first entry)
XX
DE Carcinoembryonic antigen peptide agonist SEQ ID NO:2.
XX
KW Carcinoembryonic antigen; CEA; human; agonist; antagonist;
KW immune response; carcinoma; gastrointestinal; breast; pancreatic;
KW bladder; ovarian; lung; prostatic; T cell proliferation; cancer;
KW adoptive transfer therapy; autoimmune reaction; immunotherapy.

XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO9919478-A1.
PD 22-APR-1999.
XX
PF 22-SEP-1998; 98WO-US19794.
XX
PR 10-OCT-1997; 97US-0061589.
XX
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
XX
PI Barzaga E, Schlom J, Zaremba S;
XX
DR WPI; 1999-326544/27.
XX
PT Peptide agonists and antagonists of carcinoembryonal antigen
PS Claim 5; Page 53; 72pp; English.
XX
XX The present invention describes peptides (A) that comprise agonists (Ia)
CC or antagonists (Ib) of human carcinoembryonal antigen (CEA). (Ia) are
CC used in vaccines to kill or inhibit carcinoma cells that express CEA or
CC its epitopes, particularly for treating gastrointestinal, breast,
CC pancreatic, bladder, ovarian, lung or prostatic carcinoma. They can also
CC be used to proliferate T cells, e.g. from vaccinated subjects, for use
CC in adoptive transfer therapy. (Ib) are used to inhibit CEA-specific
CC immune responses, e.g. in vaccinated subjects, to prevent an autoimmune
CC reaction to cancer immunotherapy (i.e. to prevent attack on normal but
CC CEA-expressing cells). (Ia) are more active than native sequence (I) and
CC generate a highly specific and systemic anti-CEA response. Cytotoxic T
CC cells generated recognize both (Ia) and native CEA epitopes. The present
CC sequence represents a specifically claimed example of (Ia).
XX
SQ Sequence 9 AA;
XX
Query Match 75.0%; Score 36; DB 20; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 1 YLGGACLNL 9
||| |||
DB 1 YLGGADLNL 9
RESULT 8
AAB13749
ID AAB13749 standard; peptide; 9 AA.
XX
AC AAB13749;
XX
DT 02-FEB-2001 (first entry)
XX
DE Peptide fragment # 1 from human CEA.
XX
KW Human; T-cell; immune response; antigen; epitope; B7 family molecule;
KW leukocyte function-associated antigen-3; LFA-3;
KW intercellular adhesion molecule-1; ICAM-1; vaccine; immunotherapy;
KW colon polyp; Crohn's disease; ulcerative colitis; breast lesion;
KW tumour; CEA.
XX
OS Homo sapiens.
XX
PN WO200034494-A1.
PD 15-JUN-2000.
XX
PF 12-NOV-1999; 99WO-US26866.
XX
PR 09-DEC-1998; 98US-0111582.
XX

PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
PA (THER-) THERION BIOLOGICS CORP.
XX
PI Schlom J, Hodge J, Panicali D;
XX
DR WPI; 2000-431307/37.
XX
PT Novel recombinant vector useful as immunogens and vaccines for
PT stimulating and enhancing immunological responses to target cells and
PT antigens expresses multiple co-stimulatory molecules such as B7-1,
PT LFA-3, ICAM-1 -
XX
PS Claim 18; Page 35; 188pp; English.
XX
CC Costimulatory molecules have important roles in T-cell activation and
CC therefore the immune response. The present invention relates to
CC recombinant vectors which comprise of foreign nucleic acid sequences
CC encoding at least three costimulatory molecules: a B7 family molecule,
CC leukocyte function-associated antigen-3 (LFA-3, human CD58) and
CC intercellular adhesion molecule-1 (ICAM-1, CD54) and optionally a foreign
CC gene encoding a target antigen or immunological epitope. The present
CC sequence is one such target antigen used in the present invention. The
CC present sequence is a tumour-associated antigen. The vector of the
CC response to the present target antigen. The vector of the present
CC invention may therefore be useful in immunotherapy for treating or
CC preventing diseases caused by viruses, bacteria, protozoans, parasites,
CC premalignant cells and tumour cells. The recombinant vector can be used
CC to treat or prevent preneoplastic or hyperplastic states such as colon
CC polyps, Crohn's disease, ulcerative colitis and breast lesions.
XX
SQ Sequence 9 AA;
OY
Query Match 75.0%; Score 36; DB 21; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 1 YLSGACTLNL 9
1 YLSGANLNL 9
RESULT 9
AAB13750
ID AAB13750 standard; peptide; 9 AA.
XX
AC AAB13750;
XX
DT 02-FEB-2001 (first entry)
XX
DE Peptide fragment # 2 from human CEA.
XX
KW Human; T-cell; immune response; antigen; epitope; B7 family molecule;
KW leukocyte function-associated antigen-3; LFA-3;
KW intercellular adhesion molecule-1; ICAM-1; vaccine; immunotherapy;
KW colon polyp; Crohn's disease; ulcerative colitis; breast lesion;
KW tumour; CEA.
XX
OS Homo sapiens.
XX
PN WO200034494-A1.
XX
PD 15-JUN-2000.
XX
PF 12-NOV-1999; 99WO-US26866.
XX
PR 09-DEC-1998; 98US-0111582.
XX
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
PA (THER-) THERION BIOLOGICS CORP.
XX
PI Schlom J, Hodge J, Panicali D;
XX

DR WPI; 2000-431307/37.
XX
XX Novel recombinant vector useful as immunogens and vaccines for
PT stimulating and enhancing immunological responses to target cells and
PT antigens expresses multiple co-stimulatory molecules such as B7-1,
PT LFA-3, ICAM-1 -
XX
PS Claim 18; Page 35; 188pp; English.
XX
CC Costimulatory molecules have important roles in T-cell activation and
CC therefore the immune response. The present invention relates to
CC recombinant vectors which comprise of foreign nucleic acid sequences
CC encoding at least three costimulatory molecules: a B7 family molecule,
CC leukocyte function-associated antigen-3 (LFA-3, human CD58) and
CC intercellular adhesion molecule-1 (ICAM-1, CD54) and optionally a foreign
CC gene encoding a target antigen or immunological epitope. The present
CC sequence is one such target antigen used in the present invention. The
CC present sequence is a tumour-associated antigen. The vector of the
CC response to the present target antigen. The vector of the present
CC invention may therefore be useful in immunotherapy for treating or
CC preventing diseases caused by viruses, bacteria, protozoans, parasites,
CC premalignant cells and tumour cells. The recombinant vector can be used
CC to treat or prevent preneoplastic or hyperplastic states such as colon
CC polyps, Crohn's disease, ulcerative colitis and breast lesions.
XX
SQ Sequence 9 AA;
OY
Query Match 75.0%; Score 36; DB 21; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 1 YLSGACTLNL 9
1 YLSGADLNL 9
RESULT 10
AAB82776
ID AAB82776 standard; Protein; 9 AA.
XX
AC AAB82776;
XX
DT 29-OCT-2001 (first entry)
XX
DE Carcinoembryonic antigen peptide.
XX
KW Telomerase reverse transcriptase; hTRT; human;
KW cytotoxic T lymphocyte; major histocompatibility complex; cancer;
KW tumour; human leucocyte antigen; HLA-A2.1; vaccine;
KW carcinoembryonic antigen.
XX
OS Homo sapiens.
XX
PN WO200160391-A1.
XX
PD 23-AUG-2001.
XX
PF 15-FEB-2001; 2001WO-US05143.
XX
PR 15-FEB-2000; 2000US-0182685.
PR 15-FEB-2001; 2001US-0182685.
XX
PA (REGC) UNIV CALIFORNIA.
XX
PI Zanetti M;
XX
DR WPI; 2001-536552/59.
XX
PT Vaccine for initiating and enhancing a cytotoxic T lymphocyte response,
PT for treating cancers or tumours or for inducing immune response against
PT tumours, comprises a telomerase reverse transcriptase peptide -
XX

PS Example 1; Page 12; 52pp; English.
XX
CC The present sequence is that of a carcinoembryonic antigen peptide
CC comprising amino acid residues 571-579. The peptide was used as a
CC reference peptide in comparison with human telomerase reverse
CC transcriptase (hTERT) HLA-A2.1+ restricted peptide p540 (see
CC AAB82772) in a HLA-A2.1 binding/stabilisation assay. The induction
CC of CTL responses in vitro and in vivo, and the susceptibility to
CC lysis of tumour cells of various origins by hTERT CTL suggest that
CC hTERT could serve as a universal cancer vaccine for humans. A
CC claimed universal vaccine for treating tumours of any origin
CC comprises at least 1 hTERT peptide. The peptide is 7-15 amino
CC acid residues in length and may be modified to enhance binding to
CC the major histocompatibility complex. Also claimed is a method for
CC inducing and enhancing a CTL response against cancer cells, involving
CC harvesting blood leucocytes, pulsing with hTERT, and contacting
CC cancer cells with the pulsed leucocytes. A method for targeting
CC CTL to tumour cells is also claimed, and involves administering a
CC hTERT peptide to a mammal, especially a cancer patient.
XX
SQ Sequence 9 AA;

Query Match 75.0%; Score 36; DB 22; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 YLGGACTNL 9
| | | | |
1 YLGGANLNL 9
Db

RESULT 11
AAE05123
ID AAE05123 standard; peptide; 9 AA.
XX
AC AAE05123;
XX
DT 18-SEP-2001 (first entry)
XX
DE Carcinoembryonic antigen (CEA) peptide, CAP-1.
XX
DE Tumour-associated antigen; TAA; cytostatic; vaccine; gene therapy;
KW immune response; tetanus toxoid; TT; diphtheria toxoid; DT; prophylactic;
KW cancer; therapeutic; carcinoembryonic antigen; CEA.
XX
OS Unidentified.
XX
PN WO200149317-A2.
PD 12-JUL-2001.
XX
PF 05-JAN-2001; 2001WO-CA00005.
XX
PR 05-JAN-2000; 2000US-0174587.
XX
PA (AVET) AVENTIS PASTEUR LTD.
XX
PI Emtage P, Barber BH, Sambhara S, Sia CDY;
XX
DR WPI; 2001-441790/47.
XX
XX
PT Enhancing immune response to antigen such as tumor antigen for treating
PT cancer in an animal involves administering an inducing agent to the
PT animal followed by administering inducing agent-antigen mixture -
XX
XX
PS Example 2; Page 31; 62pp; English.
XX
CC The invention relates to a method of enhancing an immune response against
CC tumour-associated antigens (TAAs), such as GP100 and carcinoembryonic
CC antigen (CEA) in an animal. The method involves priming of the animal
CC with an inducing agent such as tetanus toxoid (TT) or diphtheria toxoid
CC (DT), subsequently followed by administration of an inducing agent-
CC antigen mixture. The method provides the enhancement or augmentation of
XX
SQ Sequence 9 AA;

Query Match 75.0%; Score 36; DB 22; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;

CC the immune response to the antigen and/or improves a vaccination protocol
CC by allowing use of less antigen. The immunisation of the animal with
CC tumour-associated antigen is useful for the prophylactic or therapeutic
CC treatment of cancer. The present sequence is carcinoembryonic antigen
CC (CEA) peptide fragment related to the invention.
XX
SQ Sequence 9 AA;

Query Match 75.0%; Score 36; DB 22; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 YLGGACTNL 9
| | | | |
1 YLGGANLNL 9
Db

RESULT 12
AAE05124
ID AAE05124 standard; peptide; 9 AA.
XX
AC AAE05124;
XX
DT 18-SEP-2001 (first entry)
XX
DE Modified carcinoembryonic antigen (CEA) peptide, CAP-6D.
XX
DE Tumour-associated antigen; TAA; cytostatic; vaccine; gene therapy;
KW immune response; tetanus toxoid; TT; diphtheria toxoid; DT; prophylactic;
KW cancer; therapeutic; carcinoembryonic antigen; CEA.
XX
OS Synthetic.
XX
FH Key location/Qualifiers
FT Misc-difference 6 /note= "Wild type Asn substituted with Asp"
XX
XX
PN WO200149317-A2.
PD 12-JUL-2001.
XX
PF 05-JAN-2001; 2001WO-CA00005.
XX
PR 05-JAN-2000; 2000US-0174587.
XX
PA (AVET) AVENTIS PASTEUR LTD.
XX
PI Emtage P, Barber BH, Sambhara S, Sia CDY;
XX
DR WPI; 2001-441790/47.
XX
XX
PT Enhancing immune response to antigen such as tumor antigen for treating
PT cancer in an animal involves administering an inducing agent to the
PT animal followed by administering inducing agent-antigen mixture -
XX
XX
PS Example 2; Page 31; 62pp; English.
XX
CC The invention relates to a method of enhancing an immune response against
CC tumour-associated antigens (TAAs), such as GP100 and carcinoembryonic
CC antigen (CEA) in an animal. The method involves priming of the animal
CC with an inducing agent such as tetanus toxoid (TT) or diphtheria toxoid
CC (DT), subsequently followed by administration of an inducing agent-
CC the immune response. The method provides the enhancement or augmentation of
CC by allowing use of less antigen. The immunisation of the animal with
CC tumour-associated antigen is useful for the prophylactic or therapeutic
CC treatment of cancer. The present sequence is modified carcinoembryonic
CC antigen (CEA) peptide fragment related to the invention.
XX
SQ Sequence 9 AA;

Query Match 75.0%; Score 36; DB 22; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;

Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 YLSGACLNL 9
ID 1 YLSGADLNL 9

RESULT 13
AAB97818
ID AAB97818 standard; Peptide; 9 AA.

AC AAB97818;

DT 08-AUG-2001 (first entry)

DE Carcinoembryonic antigen (CEA) modified antigen SEQ ID NO:113.

XX Virus; adenovirus; poxvirus; alphavirus; immune response; gp100;
KW tumour antigen; CEA; carcinoembryonic antigen; immunostimulant;
KW cytostatic; immunotherapy; interferon-gamma; IFN-gamma; cancer.
XX Unidentified.

PN WO200130382-A1.

PD 03-MAY-2001.

PF 20-OCT-2000; 2000WO-CA01253.

PR 22-OCT-1999; 99US-0160879.

PR 07-AUG-2000; 2000US-0223325.

PA (AVET) AVENTIS PASTEUR LTD.

PI Berinstein N, Tartaglia J, Moingeon P, Barber B;

DR WPI; 2001-308587/32.

PT Inducing immune response to tumor antigen, useful in immunotherapy of
PT cancer, by administering the antigen to a lymphatic site -

PS Claim 19; Page 9; 60pp; English.

XX The present invention describes a method for inducing an immune response,
CC in an animal, to a tumour antigen (Ag) comprising administering Ag, or
CC nucleic acid (I) that encodes it, to a lymphatic site. Cynomolgus monkeys
CC (Macaca fascicularis) were injected with a modified form of gp100 antigen
CC (a) into the left inguinal lymph node or (b) subcutaneously. Both animals
CC of (a) developed a cell-mediated response (indicated by production of
CC interferon-gamma from T lymphocytes when exposed to gp100 peptides), but
CC only 2 of 4 animals of (b) did so. Also animals in (a) produced a far
CC greater antibody response to gp100. The method is used in immunotherapy
CC of a wide range of cancers through induction of a specific immune
CC response (humoral and cellular) against the tumour antigens. When
CC administered to a lymphatic site, Ag (or (I)) induces a stronger immune
CC response than administration by other routes and may also break tolerance
CC to Ag. AAB97708 and AAB97709 represent gp100 epitopes; AAB97710 to
CC AAB97815 represent peptides derived from gp100 which stimulate interferon
CC (IFN)-gamma production; AAH20120 encodes the modified gp100 protein given
CC in AAB97816; AAH20121 encodes the modified carcinoembryonic antigen (CEA)
CC protein given in AAB97817; and AAB97818 represents a CEA modified antigen
CC peptide, all of which are used in the exemplification of the present
CC invention.

SQ Sequence 9 AA;

Query Match 75.0%; Score 36; DB 22; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 YLSGACLNL 9
ID 1 YLSGADLNL 9

RESULT 14
AAE02673
ID AAE02673 standard; peptide; 9 AA.

AC AAE02673;

DT 06-AUG-2001 (first entry)

DE Human CEA epitopic peptide.

XX Human; cytostatic; antibacterial; antifungal; gene therapy; vaccine;
KW antiviral; tumour; epitope; glycoprotein; hepatitis B virus; HBV;
KW immune response; CTL; cytotoxic T lymphocyte; CEA; HLA;
KW human leucocyte antigen.

OS Homo sapiens.

PN WO200127291-A1.

PD 19-APR-2001.

PF 29-SEP-2000; 2000WO-EP09902.

PR 12-OCT-1999; 99US-0158356.

PA (INSP) INST PASTEUR.

PI Firat H, Lemonnier F, Langlade-demoyen P;

DR WPI; 2001-282038/29.

PT New polynucleotide comprising at least one viral, fungal, bacterial, or
PT tumour epitope of an antigen, capable of inducing a cellular response -
XX Example 1; Page 23; 70pp; English.

XX The invention relates to polynucleotide containing at least a part of
CC the coding sequence of the middle glycoprotein of hepatitis B virus
CC (HBV) in which is inserted a DNA sequence coding for an epitope
CC comprising at least one viral, fungal, bacterial, or tumour epitope of
CC an antigen, capable of inducing a cellular response. Nucleic acids and
CC compositions of the invention are useful for inducing in vivo a CTL
CC (cytotoxic T lymphocyte) response against several epitopes of one
CC or more, bacterial, viral, fungal, or tumour antigens. A composition
CC of the invention produces an immune response against HIV antigen and
CC are used in the production of vaccines. The polynucleotides of the
CC invention are also used in gene therapy. The present sequence is
CC human CEA epitopic peptide. This peptide elicits strong
CC HLA (human leucocyte antigen)-A2.1-restricted CTL response in mice.

SQ Sequence 9 AA;

Query Match 75.0%; Score 36; DB 22; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 YLSGACLNL 9
ID 1 YLSGANLNL 9

RESULT 15

AAE00463
ID AAE00463 standard; peptide; 9 AA.

AC AAE00463;

DT 19-JUN-2001 (first entry)

DE Human tumour CEA epitopic peptide.

QY 1 YLSGACLNL 9
ID 1 YLSGADLNL 9

KW Human; tumour epitope; cytostatic; immunostimulant; gene therapy;
KW middle glycoprotein; Hepatitis B virus; HBV; cytotoxic response;
KW immune response; cytotoxic T lymphocyte; CTL; CEA; HLA;
KW human leucocyte antigen.

OS Homo sapiens.

XX WO200123577-A2.

XX 05-APR-2001.

XX 29-SEP-2000; 2000WO-EP09900.

XX 30-SEP-1999; 99US-0156945.

XX (INSP) INST PASTEUR.

XX Firat H, Lemonnier F, Langlade-demoyen P, Michel M, Suhrbier AA;

XX WPI; 2001-266164/27.

PT Novel polynucleotide having DNA sequence encoding tumor antigen epitope
PT inserted in part of coding sequence of middle glycoprotein of hepatitis
PT B virus, used to induce immune response against tumor-specific antigen

XX Example 1; Page 13; 36pp; English.

CC The present invention relates to an isolated or purified polynucleotide
CC containing a DNA sequence coding for at least one tumour epitope of a
CC tumour antigen inserted into part of the coding sequence of the middle
CC glycoprotein of the Hepatitis B virus (HBV). The polynucleotide is
CC useful for optionally evaluating cytotoxic responses in the individual's
CC lymphocyte population. It induces an immune response against at least
CC one tumour specific antigen or tissue specific antigen. The vector
CC comprising the polynucleotide induces in vivo, cellular and/or humoral
CC immune response. The composition comprising the polynucleotide induces
CC in vivo, cytotoxic T lymphocyte (CTL) against one or more antigens or
CC epitopes present on the hybrid protein. The polynucleotide is also
CC useful in gene therapy.
CC The present sequence is a human tumour CEA epitopic peptide. This
CC peptide elicits strong HLA (human leucocyte antigen)-A2.1-restricted
CC CTL response in mice.

XX Sequence 9 AA;

XX SQ

Query Match 75.0%; Score 36; DB 22; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;

Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 YLSGACLNL 9
||| |||
Db 1 YLSGANLNL 9

Search completed: January 12, 2004, 14:28:24
Job time : 32.25 secs

DT 01-FEB-1997 (TReMBLrel. 02, Last sequence update)
DT 01-NOV-1998 (TReMBLrel. 08, Last annotation update)
DE Actin (Fragment).
GN ARDC.
OS Physarum polycephalum (Slime mold).
OC Eukaryota; Mycetozoa; Myxogastria; Myxogastromycetidae; Physarida;
OC Physarum.
OX NCBI_TaxID=5791;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=96182101; PubMed=8622700;
RA Benard M., Lagneel C., Pallotta D., Pierron G.;
RT "Mapping of a replication origin within the promoter region of two
RT unlinked, abundantly transcribed actin genes of Physarum
RT polycephalum.";
RL Mol. Cell. Biol. 16:968-976(1996).
DR EMBL; M73459; AAB03706.1; -.
FT NON TER 8
SQ SEQUENCE 8 AA; 878 MW; F4C6C2CAAB187B16 CRC64;

Query Match 35.6%; Score 16; DB 5; Length 8;
Best Local Similarity 33.3%; Pred. No. 8.3e+05;
Matches 2; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 2 LSGADI 7
: |||:
Db 1 MEGEDV 6

RESULT 3
Q50832 PRELIMINARY; PRT; 9 AA.

ID Q50832;
AC Q50832;
DT 01-NOV-1996 (TReMBLrel. 01, Created)
DT 01-NOV-1996 (TReMBLrel. 01, Last sequence update)
DT 01-NOV-1996 (TReMBLrel. 01, Last annotation update)
DE Intergenic AT-rich DNA sequence (Fragment).
OS Methanococcus voltae.
OC Archaea; Euryarchaeota; Methanococci; Methanococcales;
OC Methanococcaceae; Methanococcus.
OX NCBI_TaxID=2188;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=85230552; PubMed=4006907;
RA Bollscheueller C., Kuehn R., Klein A.;
RT "Non-repetitive AT-rich sequences are found in intergenic regions of
RT Methanococcus voltae DNA.";
RL EMBL; X02518; CAA26355.1; -.
DR EMBL; X02518; CAA26355.1; -.
FT NON TER 9
SQ SEQUENCE 9 AA; 1087 MW; 99ED005DC404405A CRC64;

Query Match 35.6%; Score 16; DB 1; Length 9;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 6 DIN 8
|||
Db 2 DIN 4

RESULT 4
Q63480 PRELIMINARY; PRT; 7 AA.
ID Q63480;
AC Q63480;
DT 01-NOV-1996 (TReMBLrel. 01, Created)
DT 01-NOV-1996 (TReMBLrel. 01, Last sequence update)
DT 01-DEC-2001 (TReMBLrel. 19, Last annotation update)
DE TR4-NS orphan receptor (Fragment).
GN TR4.
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.

OX NCBI_TaxID=10116;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=96198747; PubMed=8612486;
RA Yoshikawa T., Makino S., Gao X.M., Xing G.Q., Chuang D.M.,
RA Detera-Wadleigh S.D.;
RT "Splice variants of rat TR4 orphan receptor: differential expression
RT of novel sequences in the 5'-untranslated region and C-terminal
RT domain.";
RL Endocrinology 137:1562-1571(1996).
DR EMBL; U59125; AAB02827.1; -.
KW Receptor.
FT NON TER 1
SQ SEQUENCE 7 AA; 758 MW; 672AA87864005350 CRC64;

Query Match 33.3%; Score 15; DB 11; Length 7;
Best Local Similarity 33.3%; Pred. No. 8.3e+05;
Matches 2; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 2 LSGADI 7
: |||:
Db 2 IRGDL 7

RESULT 5
P87225 PRELIMINARY; PRT; 8 AA.

ID P87225;
AC P87225;
DT 01-JUL-1997 (TReMBLrel. 04, Created)
DT 01-NOV-1999 (TReMBLrel. 12, Last sequence update)
DT 01-OCT-2002 (TReMBLrel. 22, Last annotation update)
DE GIN11 protein (Fragment).
OS Saccharomyces cerevisiae (Baker's yeast).
OC Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
OC Saccharomycetales; Saccharomycetaceae; Saccharomyces.
OX NCBI_TaxID=4932;
RN [1]
RP SEQUENCE FROM N.A.
RA Wedler H., Wedler E., Scharfe M., Wambutt R.;
RL Submitted (MAY-1996) to the EMBL/GenBank/DBJ databases.
RN [2]
RP SEQUENCE FROM N.A.
RA MIPS;
RL Submitted (MAY-1996) to the EMBL/GenBank/DBJ databases.
DR EMBL; Z73169; CAA97518.2; -.
FT NON TER 1
SQ SEQUENCE 8 AA; 1019 MW; 4E21A9C449D5B73B CRC64;

Query Match 33.3%; Score 15; DB 3; Length 8;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLS 3
|||
Db 1 YLS 3

RESULT 6
Q9UMC7 PRELIMINARY; PRT; 8 AA.
ID Q9UMC7;
AC Q9UMC7;
DT 01-MAY-2000 (TReMBLrel. 13, Created)
DT 01-MAY-2000 (TReMBLrel. 13, Last sequence update)
DT 01-MAY-2000 (TReMBLrel. 13, Last annotation update)
DE SHMT protein (Fragment).
GN SHMT.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RA Chave K.J., Snell K., Sanders P.G.;

RT "Isolation and characterisation of human genomic sequences encoding
RT cytosolic serine hydroxymethyltransferase.";
RL Biochem. Soc. Trans. 25:53-53(1997).

DR EMBL; Y14492; CAB54844.1; -.

FT NON_TER 1 1

FT NON_TER 8 8

SEQ SEQUENCE 8 AA; 868 MW; 7C205721E44AB5B8 CRC64;

Query Match 33.3%; Score 15; DB 4; Length 8;

Best Local Similarity 50.0%; Pred. No. 8.3e+05;

Matches 3; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

OY 4 GADINL 9

Db 1 GSDNHL 6

RESULT 7

Q8WNS1

ID Q8WNS1 PRELIMINARY; PRT; 8 AA.

AC Q8WNS1;

DT 01-MAR-2002 (TReMBLrel. 20, Created)

DT 01-MAR-2002 (TReMBLrel. 20, Last sequence update)

DT 01-MAR-2002 (TReMBLrel. 20, Last annotation update)

DE X-linked zinc finger protein (Fragment).

GN ZFX.

OS Bos taurus (Bovine).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidea;

OC Bovidae; Bovinae; Bos.

OC NCBI_TaxID=9913;

RN [1]

RP SEQUENCE FROM N.A.

RA Polounienko A., Blecher S.;

RT "Comparison between intron-exon structures in ZFX and ZFY genes.";

RL Submitted (NOV-1997) to the EMBL/GenBank/DBJ databases.

DR EMBL; AF045782; AAL58190.1; -.

FT NON_TER 1 1

FT NON_TER 8 8

SEQ SEQUENCE 8 AA; 904 MW; DF1DC2C4472AAB1A CRC64;

Query Match 33.3%; Score 15; DB 6; Length 8;

Best Local Similarity 50.0%; Pred. No. 8.3e+05;

Matches 2; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

OY 6 DINL 9

Db 3 DLNV 6

RESULT 8

Q9X3K1

ID Q9X3K1 PRELIMINARY; PRT; 8 AA.

AC Q9X3K1;

DT 01-NOV-1999 (TReMBLrel. 12, Created)

DT 01-NOV-1999 (TReMBLrel. 12, Last sequence update)

DT 01-NOV-1999 (TReMBLrel. 12, Last annotation update)

DE Cytochrome b (Fragment).

GN PETB.

OS Prochlorococcus sp.

OC Bacteria; Cyanobacteria; Prochlorophytes; Prochlorococcaceae;

OC Prochlorococcus.

OC NCBI_TaxID=1220;

RN [1]

RP SEQUENCE FROM N.A.

RA Urbach E., Chisholm S.W.;

RT "Genetic diversity in Prochlorococcus populations flow cytometrically

sorted from the Sargasso Sea and Gulf Stream.";

RL limnol. Oceanog. 43:1615-1630(1998).

DR EMBL; AF070193; AAD23233.1; -.

FT NON_TER 1 1

SEQ SEQUENCE 8 AA; 799 MW; 10376865B72866D3 CRC64;

Query Match 31.1%; Score 14; DB 2; Length 8;

Best Local Similarity 100.0%; Pred. No. 8.3e+05;

Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 2 LSG 4

Db 4 LSG 6

RESULT 9

Q8IUB8

ID Q8IUB8 PRELIMINARY; PRT; 8 AA.

AC Q8IUB8;

DT 01-MAR-2003 (TReMBLrel. 23, Created)

DT 01-MAR-2003 (TReMBLrel. 23, Last sequence update)

DT 01-MAR-2003 (TReMBLrel. 23, Last annotation update)

DE CD95 antigen (Fragment).

GN CD95.

OS Homo sapiens (Human).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.

OC NCBI_TaxID=9606;

RN [1]

RP SEQUENCE FROM N.A.

RX MEDLINE=22404279; PubMed=12516573;

RA Kurth J., Pernick A., Schmitz R., Iking-Konert C., Chiorazzi N.,

Thompson K.M., Winkler T., Rajewsky K., Kueppers R.;

RT "Lack of deleterious somatic mutations in the CD95 gene of

plasmablasts from systemic lupus erythematosus patients and

RT autoantibody-producing cell lines.";

RL Eur. J. Immunol. 32:3785-3792(2002).

DR EMBL; AJ509178; CAD48928.1; -.

FT NON_TER 1 1

FT NON_TER 8 8

SEQ SEQUENCE 8 AA; 846 MW; 34B724405DC2D1AB CRC64;

Query Match 31.1%; Score 14; DB 4; Length 8;

Best Local Similarity 100.0%; Pred. No. 8.3e+05;

Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 7 INL 9

Db 5 INL 7

RESULT 10

Q9PS69

ID Q9PS69 PRELIMINARY; PRT; 8 AA.

AC Q9PS69;

DT 01-MAY-2000 (TReMBLrel. 13, Created)

DT 01-MAY-2000 (TReMBLrel. 13, Last sequence update)

DT 01-JUN-2002 (TReMBLrel. 21, Last annotation update)

DE LOW density lipoprotein receptor-related protein (Fragment).

OS Gallus gallus (Chicken).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;

OC Gallus.

OC NCBI_TaxID=9031;

RN [1]

RP SEQUENCE.

RX MEDLINE=92011685; PubMed=1918027;

RA Stifani S., Barber D.L., Aebersold R., Steyrer E., Shen X., Nimpf J.,

Schneider W.J.;

RT "The laying hen expresses two different low density lipoprotein

receptor-related proteins.";

RL J. Biol. Chem. 266:19079-19087(1991).

FT NON_TER 1 1

FT NON_TER 8 8

SEQ SEQUENCE 8 AA; 846 MW; C007272DD865BAAA CRC64;

Query Match 31.1%; Score 14; DB 13; Length 8;

Best Local Similarity 100.0%; Pred. No. 8.3e+05;

Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 3 SGA 5
|||
Db 3 SGA 5

RESULT 11

P82079 PRELIMINARY; PRT; 8 AA.
AC P82079;
DT 01-MAY-2000 (TREMBLrel. 13, Created)
DT 01-MAY-2000 (TREMBLrel. 13, Last sequence update)
DT 01-MAY-2000 (TREMBLrel. 13, Last annotation update)
DE DYNASTIN 1.
OS Limnodynastes interioris (Giant banjo frog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Neobatrachia; Bufonidae; Myobatrachidae;
OC Limnodynastinae; Limnodynastes.
OX NCBI_TaxID=30362;
RN [1]
RP SEQUENCE, AND MASS SPECTROMETRY.
RC TISSUE=TIBIAL GLAND;
RA Raftery M.J., Bradford A.M., Bowie J.H., Wallace J.C., Tyler M.J.;
RT "Peptides from Australian frogs. The structure of the dynastins from
RT the banjo frogs Limnodynastes interioris, Limnodynastes dumerilii and
RT Limnodynastes terraereginae."
RL Aust. J. Chem. 46:833-842(1993).
CC -I- MASS SPECTROMETRY: MW=729; METHOD=FAB.
KW Amphibian skin.
SQ SEQUENCE 8 AA; 729 MW; 7C28772865B72728 CRC64;

Query Match 31.1%; Score 14; DB 13; Length 8;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 2 LSG 4
|||
Db 3 LSG 5

RESULT 12

Q9TRSO PRELIMINARY; PRT; 9 AA.
AC Q9TRSO;
DT 01-MAY-2000 (TREMBLrel. 13, Created)
DT 01-MAY-2000 (TREMBLrel. 13, Last sequence update)
DT 01-JUN-2002 (TREMBLrel. 21, Last annotation update)
DE Calyculin-associated protein, CAP50=CA2+/phospholipid-binding protein
DE L-7 fragment (Fragment).
OS Oryctolagus cuniculus (Rabbit).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
OX NCBI_TaxID=9986;
RN [1]
RP SEQUENCE.
RX MEDLINE=92250478; PubMed=1533622;
RA Tokumitsu H., Mizutani A., Minami H., Kobayashi R., Hidaka H.;
RT "A calyculin-associated protein is a newly identified member of the
RT Ca2+/phospholipid-binding proteins, annexin family.";
RL J. Biol. Chem. 267:8919-8924(1992).
FT NON_TER 1 1
FT NON_TER 9 9
SQ SEQUENCE 9 AA; 1010 MW; 64E419C44865B72B CRC64;

Query Match 31.1%; Score 14; DB 6; Length 9;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 2 LSG 4
|||
Db 3 LSG 5

RESULT 13

Q9FEC0 PRELIMINARY; PRT; 9 AA.
AC Q9FEC0;
DT 01-MAR-2001 (TREMBLrel. 16, Created)
DT 01-MAR-2001 (TREMBLrel. 16, Last sequence update)
DT 01-MAR-2003 (TREMBLrel. 23, Last annotation update)
DE MaltuORF (MLA13uORF 2de).
GN MLA1.
OS Hordeum vulgare (Barley).
OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Poideae;
OC Triticeae; Hordeum.
OX NCBI_TaxID=4513;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=cv. Algerian;
RA Zhou F., Kurth J., Wei F., Elliott C., Vale G., Yahiaoui N.,
RA Keller B., Somerville S., Wise R., Schulze-Jefert P.;
RT "Cell-autonomous Expression of Barley Mla1 Confers Race-specific
RT Resistance to the Powdery Mildew Fungus via a Rar1 Independent
RT Signaling Pathway."
RL Plant Cell 0:0-0(2001).
RN [2]
RP SEQUENCE FROM N.A.
RA Halterman D.A., Wei F., Wise R.P.;
RT "Powdery mildew-induced Mla mRNAs are alternatively spliced and
RT contain multiple upstream open reading frames."
RL Plant Physiol. 0:0-0(2003).
DR EMBL; AY009939; AAG37357.1; -
DR EMBL; AY009938; AAG37355.1; -
DR EMBL; AF523682; AA016013.1; -
DR EMBL; AF523683; AA016016.1; -
SQ SEQUENCE 9 AA; 1163 MW; 473E2440573B5337 CRC64;

Query Match 31.1%; Score 14; DB 10; Length 9;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 7 INL 9
|||
Db 6 INL 8

RESULT 14

Q35953 PRELIMINARY; PRT; 9 AA.
AC Q35953;
DT 01-JAN-1998 (TREMBLrel. 05, Created)
DT 01-JAN-1998 (TREMBLrel. 05, Last sequence update)
DT 01-DEC-2001 (TREMBLrel. 19, Last annotation update)
DE Truncated voltage-gated sodium channel alpha subunit (Fragment).
GN SCN8A.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=R111;
RX MEDLINE=97442476; PubMed=9295353;
RA Plummer N.W., McBurney M.W., Weisler M.H.;
RT "Alternative splicing of the sodium channel SCN8A predicts a truncated
RT two-domain protein in fetal brain and non-neuronal cells.";
RL J. Biol. Chem. 272:24008-24015(1997).
DR EMBL; U97672; AAB80914.1; -
DR MGD; MGI:103169; Scn8a.
KW Ionic channel.
FT NON_TER 1 1
SQ SEQUENCE 9 AA; 898 MW; 22D92865B735B737 CRC64;

Query Match 31.1%; Score 14; DB 11; Length 9;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;

Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 2 LSG 4
Db 5 LSG 7

RESULT 15

Q8UTD7
ID Q8UTD7 PRELIMINARY; PRT; 9 AA.
AC Q8UTD7;
DT 01-MAR-2002 (TReMBLrel. 20, Created)
DT 01-MAR-2002 (TReMBLrel. 20, Last sequence update)
DT 01-OCT-2002 (TReMBLrel. 22, Last annotation update)
DE Vpu protein.
GN VPU.
OS Human immunodeficiency virus 1.
OC Viruses; Retrovird viruses; Retroviridae; Lentivirus.
OX NCBI_TaxID=11676;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=00BW1471.27;
RA Novitsky V.A., Smith U.R., Gilbert P., McLane M.F., Chigwedere P.,
RA Williamson C., Ndung'u T., Klein I., Chang S.-Y., Peter T., Thior I.,
RA Foley B.T., Gaoekwe S., Rybak N., Gaseitsiwe S., Vannberg F.,
RA Marlink R., Lee T.-H., Essex M.;
RT "HIV-1 subtype C molecular phylogeny: consensus sequence for an AIDS
RT vaccine design."
RL Submitted (OCT-2001) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF443091; AAL34712.1; -
SQ SEQUENCE 9 AA; 1102 MW; 188BD40B17272440 CRC64;

Query Match 31.1%; Score 14; DB 15; Length 9;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 7 INL 9
Db 2 INL 4

Search completed: January 12, 2004, 14:30:59
Job time : 25.75 secs

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: January 12, 2004, 14:21:08 ; Search time 32.25 Seconds
(without alignments)
44.296 Million cell updates/sec

Title:	US-09-529-121A-3
Perfect score:	45
Sequence:	1 YLSGADINL 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1107863 seqs, 158726573 residues

Total number of hits satisfying chosen parameters: 179625

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Minimum DB seq length: 0
Maximum DB seq length: 9
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Post-processing:	Minimum Match 0%
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	Listing first 45 summaries

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24: /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA2003.DAT:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	45	100.0	9	20	AAV09527	Carcinoembryonic a
2	43	95.6	9	20	AAV09526	Carcinoembryonic a
3	43	95.6	9	21	AAB13750	Peptide fragment #
4	43	95.6	9	22	AAE05124	Modified carcinoem
5	43	95.6	9	22	AAB97818	Carcinoembryonic a
6	43	95.6	9	23	AAB47917	Modified CEA epito
7	43	95.6	9	23	AAE19089	HLA-A24 restricted
8	40	88.9	9	20	AAV09528	Carcinoembryonic a
9	38	84.4	9	18	AAW39723	Human carcina-emb

10	38	84.4	9	19	AAW77134	CEA synthetic pept
11	38	84.4	9	19	AAW70045	CEA derived HLA-A2
12	38	84.4	9	20	AAV47655	Immunogenic peptid
13	38	84.4	9	20	AAV09525	Carcinoembryonic a
14	38	84.4	9	21	AAB13749	Peptide fragment #
15	38	84.4	9	22	AAB82776	Carcinoembryonic a
16	38	84.4	9	22	AAE05123	Carcinoembryonic a
17	38	84.4	9	22	AAE02673	Human CEA epitopic
18	38	84.4	9	22	AAE00463	Human tumour CEA e
19	38	84.4	9	23	AAE26805	Human HLA-A2.1 res
20	38	84.4	9	23	ABG79073	Human CEA class I
21	38	84.4	9	23	AAU95893	Immunogenic peptid
22	38	84.4	9	23	AAE19088	HLA-A24 restricted
23	35	77.8	9	21	AAV54173	HLA binding peptid
24	35	77.8	9	22	AAU26560	Human leukocyte An
25	35	77.8	9	22	AAB99681	HLA A2 binding CTL
26	34	75.6	9	20	AAV09529	Carcinoembryonic a
27	32	71.1	9	22	AAB75854	Tumour associated
28	31	68.9	9	17	AAW00680	Peptide comprising
29	26	57.8	9	23	AAU82064	CEA antigenic pept
30	25	55.6	7	20	AAV41846	Rheumatoid arthrit
31	24	53.3	8	22	ABP18160	HIV B58 super moti
32	24	53.3	9	19	AAW70078	B. stearothermophi
33	24	53.3	9	22	ABP18161	HIV B58 super moti
34	23	51.1	7	20	AAV41847	Rheumatoid arthrit
35	23	51.1	7	22	AAB75084	Nucleotide-5'-phos
36	23	51.1	9	11	AAK07966	Tryptic fragment T
37	23	51.1	9	18	AAW38383	Synthetic pMEL17 p
38	23	51.1	9	20	AAV47062	Immunogenic peptid
39	23	51.1	9	23	AAE31162	Human spl100 peptid
40	23	51.1	9	23	AAE31390	Human PM17 peptide
41	23	51.1	9	24	ABJ38049	Human cytomagalovi
42	23	51.1	9	24	ABR16172	Human cancer-relat
43	23	51.1	9	24	ABR16174	Human cancer-relat
44	23	51.1	9	24	ABR16188	Human cancer-relat
45	23	51.1	9	24	ABR16428	Human cancer-relat

ALIGNMENTS

RESULT 1	
AAAY09527	
ID	AAAY09527 standard; peptide; 9 AA

AC AAY09527;

DT 20-JUL-1999 (first entry)

DE Carcinoembryonic antigen peptide agonist SEQ ID NO:3.

KW Carcinoembryonic antigen; CEA; human; agonist; antagonist;

KW bladder; ovarian; lung; prostatic; T cell proliferation; cancer;

XX	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
XX	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

Synthetic.

PN WO9919478-A1

PD 22-APR-1999.

PF 22-SEP-1998; 98WO-US19794.

PR 10-OCT-1997; 97US-0061589.

PA (USSH) US DEPT HEALTH & HUMAN SERVICES.

PI Barzaga E, Schlom J, Zaremba S;

DR WPI: 1999-326544/27

PT Peptide agonists and antagonists of carcinoembryonal antigen
XX
PS Claim 5, Page 53; 72pp; English.
XX
CC The present invention describes peptides (A) that comprise agonists (Ia)
CC or antagonists (Ib) of human carcinoembryonal antigen (CEA). (Ia) are
CC used in vaccines to kill or inhibit carcinoma cells that express CEA or
CC its epitopes, particularly for treating gastrointestinal, breast,
CC pancreatic, bladder, ovarian, lung or prostatic carcinoma. They can also
CC be used to proliferate T cells, e.g. from vaccinated subjects, for use
CC in adoptive transfer therapy. (Ib) are used to inhibit CEA-specific
CC immune responses, e.g. in vaccinated subjects, to prevent an autoimmune
CC reaction to cancer immunotherapy (i.e. to prevent attack on normal but
CC CEA-expressing cells). (Ia) are more active than native sequence (I) and
CC generate a highly specific and systemic anti-CEA response. Cytotoxic T
CC cells generated recognize both (Ia) and native CEA epitopes. The present
CC sequence represents a specifically claimed example of (Ia).
XX
SQ Sequence 9 AA;
Query Match 100.0%; Score 45; DB 20; Length 9;
Best Local Similarity 100.0%; Pred. No. 9.3e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 YLSGADINL 9
Db 1 YLSGADINL 9
RESULT 2
AAY09526
ID AAY09526 standard; peptide; 9 AA.
XX
AC AAY09526;
XX
DT 20-JUL-1999 (first entry)
XX
DE Carcinoembryonic antigen peptide agonist SEQ ID NO:2.
XX
DE Carcinoembryonic antigen; CEA; human; agonist; antagonist;
XX immune response; carcinoma; gastrointestinal; breast; pancreatic;
XX bladder; ovarian; lung; prostatic; T cell proliferation; cancer;
XX adoptive transfer therapy; autoimmune reaction; immunotherapy.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO9919478-A1.
XX
PD 22-APR-1999.
XX
PF 22-SEP-1998; 98WO-US19794.
XX
PR 10-OCT-1997; 97US-0061589.
XX
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
XX
PI Barzaga E, Schlom J, Zarembo S;
XX
DR WPI; 1999-326544/27.
XX
PT Peptide agonists and antagonists of carcinoembryonal antigen
XX
PS Claim 5; Page 53; 72pp; English.
XX
CC The present invention describes peptides (A) that comprise agonists (Ia)
CC or antagonists (Ib) of human carcinoembryonal antigen (CEA). (Ia) are
CC used in vaccines to kill or inhibit carcinoma cells that express CEA or
CC its epitopes, particularly for treating gastrointestinal, breast,
CC pancreatic, bladder, ovarian, lung or prostatic carcinoma. They can also
CC be used to proliferate T cells, e.g. from vaccinated subjects, for use
CC in adoptive transfer therapy. (Ib) are used to inhibit CEA-specific
CC immune responses, e.g. in vaccinated subjects, to prevent an autoimmune

CC reaction to cancer immunotherapy (i.e. to prevent attack on normal but
CC CEA-expressing cells). (Ia) are more active than native sequence (I) and
CC generate a highly specific and systemic anti-CEA response. Cytotoxic T
CC cells generated recognize both (Ia) and native CEA epitopes. The present
CC sequence represents a specifically claimed example of (Ia).
XX
SQ Sequence 9 AA;
Query Match 95.6%; Score 43; DB 20; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 1 YLSGADINL 9
Db 1 YLSGADINL 9
RESULT 3
AAB13750
ID AAB13750 standard; peptide; 9 AA.
XX
AC AAB13750;
XX
DT 02-FEB-2001 (first entry)
XX
DE Peptide fragment # 2 from human CEA.
XX
DE Human; T-cell; immune response; antigen; epitope; B7 family molecule;
XX Leukocyte function-associated antigen-3; LFA-3;
XX Intercellular adhesion molecule-1; ICAM-1; vaccine; immunotherapy;
XX colon polyp; Crohn's disease; ulcerative colitis; breast lesion;
XX tumour; CEA.
XX
OS Homo sapiens.
XX
PN WO200034494-A1.
XX
PD 15-JUN-2000.
XX
PF 12-NOV-1999; 99WO-US26866.
XX
PR 09-DEC-1998; 98US-0111582.
XX
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
PA (THER-) THERION BIOLOGICS CORP.
XX
PI Schlom J, Hodge J, Panicali D;
XX
DR WPI; 2000-431307/37.
XX
PT Novel recombinant vector useful as immunogens and vaccines for
PT stimulating and enhancing immunological responses to target cells and
PT antigens expresses multiple co-stimulatory molecules such as B7-1,
PT LFA-3, ICAM-1 -
XX
PS Claim 18; Page 35; 188pp; English.
XX
CC Costimulatory molecules have important roles in T-cell activation and
CC therefore the immune response. The present invention relates to
CC recombinant vectors which comprise of foreign nucleic acid sequences
CC encoding at least three costimulatory molecules: a B7 family molecule,
CC leukocyte function-associated antigen-3 (LFA-3, human CD58) and
CC intercellular adhesion molecule-1 (ICAM-1, CD54) and optionally a foreign
CC gene encoding a target antigen or immunological epitope. The present
CC sequence is one such target antigen used in the present invention. The
CC present sequence is a tumour-associated antigen. The vector of the
CC present invention would be useful for providing an enhanced immune
CC response to the present target antigen. The vector of the present
CC invention may therefore be useful in immunotherapy for treating or
CC preventing diseases caused by viruses, bacteria, protozoans, parasites,
CC premalignant cells and tumour cells. The recombinant vector can be used
CC to treat or prevent preneoplastic or hyperplastic states such as colon
CC polyps, Crohn's disease, ulcerative colitis and breast lesions.

XX Sequence 9 AA;
SQ
Query Match 95.6%; Score 43; DB 21; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 1 YLSGADINL 9
Db 1 YLSGADLNL 9
RESULT 4
AAE05124
ID AAE05124 standard; peptide; 9 AA.
XX AAE05124;
AC
XX 18-SEP-2001 (first entry)
DT
XX Modified carcinoembryonic antigen (CEA) peptide, CAP-6D.
DE
XX Tumour-associated antigen; TAA; cytostatic; vaccine; gene therapy;
KW immune response; tetanus toxoid; TT; diphtheria toxoid; DT; prophylactic;
KM cancer; therapeutic; carcinoembryonic antigen; CEA.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Misc-difference 6 /note= "Wild type Asn substituted with Asp"
FT
XX WO200149317-A2.
PN
XX 12-JUL-2001.
PD
XX 05-JAN-2001; 2001WO-CA00005.
PF
XX 05-JAN-2000; 2000US-0174587.
PR
XX (AVET) AVENTIS PASTEUR LTD.
PA
XX Emtage P, Barber BH, Sambhara S, Sia CDY;
PI
XX WPI; 2001-441790/47.
DR
XX Enhancing immune response to antigen such as tumor antigen for treating
PT cancer in an animal involves administering an inducing agent to the
PT animal followed by administering inducing agent-antigen mixture -
PS Example 2; Page 31; 62pp; English.
XX
XX The invention relates to a method of enhancing an immune response against
CC tumour-associated antigens (TAAs), such as gp100 and carcinoembryonic
CC antigen (CEA) in an animal. The method involves priming of the animal
CC with an inducing agent such as tetanus toxoid (TT) or diphtheria toxoid
CC (DT), subsequently followed by administration of an inducing agent-
CC antigen mixture. The method provides the enhancement or augmentation of
CC the immune response to the antigen and/or improves a vaccination protocol
CC by allowing use of less antigen. The immunisation of the animal with
CC tumour-associated antigen is useful for the prophylactic or therapeutic
CC treatment of cancer. The present sequence is modified carcinoembryonic
CC antigen (CEA) peptide fragment related to the invention.
XX
SQ Sequence 9 AA;
Query Match 95.6%; Score 43; DB 22; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 1 YLSGADINL 9
Db 1 YLSGADLNL 9

RESULT 5
AAB97818
ID AAB97818 standard; Peptide; 9 AA.
XX
XX AAB97818;
AC
XX 08-AUG-2001 (first entry)
DT
XX Carcinoembryonic antigen (CEA) modified antigen SEQ ID NO:113.
DE
XX Virus; adenovirus; poxvirus; alphavirus; immune response; gp100;
KW tumour antigen; CEA; carcinoembryonic antigen; immunostimulant;
KW cytostatic; immunotherapy; interferon-gamma; IFN-gamma; cancer.
XX
XX Unidentified.
OS
XX WO200130382-A1.
PN
XX 03-MAY-2001.
PD
XX 20-OCT-2000; 2000WO-CA01253.
PF
XX 22-OCT-1999; 99US-0160879.
PR
XX 07-AUG-2000; 2000US-0223325.
XX
PA (AVET) AVENTIS PASTEUR LTD.
XX
PI Berinstrein N, Tartaglia J, Moingeon P, Barber B;
PI
XX WPI; 2001-308587/32.
DR
XX Inducing immune response to tumor antigen, useful in immunotherapy of
PT cancer, by administering the antigen to a lymphatic site -
PT
XX Claim 19; Page 9; 60pp; English.
PS
XX The present invention describes a method for inducing an immune response,
CC in an animal, to a tumour antigen (Ag) comprising administering Ag, or
CC nucleic acid (I) that encodes it, to a lymphatic site. Cynomolgus monkeys
CC (Macaca fascicularis) were injected with a modified form of gp100 antigen
CC (a) into the left inguinal lymph node or (b) subcutaneously. Both animals
CC of (a) developed a cell-mediated response (indicated by production of
CC interferon-gamma from T lymphocytes when exposed to gp100 peptides), but
CC only 2 of 4 animals of (b) did so. Also animals in (a) produced a far
CC greater antibody response to gp100. The method is used in immunotherapy
CC of a wide range of cancers through induction of a specific immune
CC response (humoral and cellular) against the tumour antigens. When
CC administered to a lymphatic site, Ag (or (I)) induces a stronger immune
CC response than administration by other routes and may also break tolerance
CC to Ag. AAB97708 and AAB97709 represent gp100 epitopes; AAB97710 to
CC AAB97815 represent peptides derived from gp100 which stimulate interferon
CC (IFN)-gamma production; AAH20120 encodes the modified gp100 protein given
CC in AAB97816; AAH20121 encodes the modified carcinoembryonic antigen (CEA)
CC protein given in AAB97817, and AAB97818 represents a CEA modified antigen
CC peptide, all of which are used in the exemplification of the present
CC invention.
XX
SQ Sequence 9 AA;
Query Match 95.6%; Score 43; DB 22; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 1 YLSGADINL 9
Db 1 YLSGADLNL 9
RESULT 6
AAB47917
ID AAB47917 standard; peptide; 9 AA.

XX AAB47917;
AC
XX 16-MAY-2002 (first entry)
DT
XX Modified CEA epitope, CEA(6D).
DE
XX
KW CAP-1; epitope; carcinoembryonic antigen; CEA; agonist; immune response;
KW carcinoma; gastrointestinal; breast; pancreatic; bladder; ovarian;
KW lung; prostate; cancer.
XX
OS Synthetic.
XX
FH Key
FT Misc-difference 6 Location/Qualifiers
FT /label= N6D
XX
PN WO200210379-A2.
XX
PD 07-FEB-2002.
XX
PF 27-JUL-2001; 2001WO-CA01092.
XX
PR 31-JUL-2000; 2000US-222043P.
XX
PA (AVET) AVENTIS PASTEUR LTD.
PA (THER-) THERION BIOLOGICS.
PA (USSH) US NAT CANCER INST.
XX
PI Berinstein N, Tartaglia J, Tine JA, Panicali DL, Gritz L;
PI Schlom J;
XX
DR WPI; 2002-206189/26.
XX
PT Carcinoembryonic antigen agonist polypeptide for inducing an immune
PT response in animal against antigen and for inhibiting an epitope
PT antigen expressing carcinoma cell, comprises a modified antigen epitope
PT -
XX
PS Claim 1; Page 38; 69pp; English.
XX
CC This sequence represents a modified CAP-1 epitope of carcinoembryonic
CC antigen (CEA) which was used as part of the CEA agonist polypeptide of
CC the invention. The modification of position 6 of this peptide from Asp
CC to Asn increases its immunogenicity. The CEA agonist polypeptide of
CC the invention, or DNA encoding it, are useful for:
CC (i) inducing an immune response in an animal directed against a CEA
CC protein or fragment, CEA agonist, a CEA epitope, a modified CEA epitope,
CC cells expressing or binding a CEA protein or fragment; and
CC (ii) inhibiting a CEA epitope expressing carcinoma cell, which is a
CC gastrointestinal, breast, pancreatic, bladder, ovarian, lung or
CC prostate carcinoma cell in a patient, hence is useful for manufacture
CC of a medicament for the treatment of cancer.
XX
SQ Sequence 9 AA;
QY
Db 1 YLSGADINTL 9
1 YLSGADINTL 9
Query Match 95.6%; Score 43; DB 23; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

DE HLA-A24 restricted target antigen CEA immunological epitope #3.
XX
KW Human leukocyte antigen; HLA; pharmaceutical composition; target antigen;
KW immunological epitope; replication-defective virus; RDV; immune response;
KW chemotherapy; granulocyte-monocyte-colony stimulating factor; cytostatic;
KW GM-CSF; MHC; major histocompatibility complex; tumour; head; pancreatic;
KW neck; breast; prostate; colorectal; melanoma; myelodysplastic syndrome;
KW metastatic breast skin lesion; corticosteroid therapy; erythropoietin;
KW cytopenia; neutropenia; vaccine; immunostimulant.
XX
OS Homo sapiens.
XX
PN WO200195919-A2.
XX
PD 20-DEC-2001.
XX
PF 15-JUN-2001; 2001WO-US19201.
XX
PR 15-JUN-2000; 2000US-211717P.
XX
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
PA (THER-) THERION BIOLOGICS CORP.
XX
PI Schlom J, Greiner JW, Kass E, Panicali D;
PI WPI; 2002-205852/26.
XX
DR
XX
PT Composition for enhancing immune responses, particularly anti-tumor
PT responses and treating neutropenia, cytopenia, comprises
PT replication-defective virus encoding granulocyte-monocyte-colony
PT stimulating factor -
XX
PS Claim 9; Page 15; 118pp; English.
XX
CC The present invention relates to a pharmaceutical composition comprising
CC a replication-defective virus (RDV) encoding granulocyte-monocyte-colony
CC stimulating factor (GM-CSF). The invention is useful for enhancing cell-
CC mediated or humoral immune response in an individual, by enhancing
CC migration of APC expressing CD11c⁺/I-Ab⁺, major histocompatibility
CC complex (MHC) class II, at an injection site, regional lymph node at a
CC tumour site, APC proliferation or function, CD4⁺T or CD8⁺T cell
CC activation, interleukin (IL)-2, interferon (IFN)-gamma or tumour necrosis
CC factor (TNF)-alpha production or their combinations. The composition
CC enhances an antigen-specific T-cell response in an individual to a target
CC antigen or its immunological epitope and an anti-tumour response in an
CC individual with a head tumour, neck, breast, pancreatic, prostate,
CC colorectal or metastatic tumour or melanoma, or metastatic breast skin
CC lesion. The invention is further useful for treating neutropenia
CC resulting from chemotherapy, corticosteroid therapy, irradiation or an
CC infection, by raising the neutrophil count to normal levels and for
CC treating cytopenias in patients with myelodysplastic syndrome in
CC combination with erythropoietin, by increasing neutrophil count and
CC erythroid precursors. The composition enhances immune response to
CC vaccines such as DPT, Td, DtaP, Hib, DtaP-Hib, MMR, Hepatitis A,
CC hepatitis B, Lyme's disease, influenza, tetraivalent meningococcal
CC polysaccharide, pneumococcal polysaccharide, anthrax, cholera, plague,
CC yellow fever and Bacillus Calmette-Guerin vaccine. The present sequence
CC is human leukocyte antigen (HLA)-restricted target tumour antigen
CC immunological epitope.
XX
SQ Sequence 9 AA;
QY
Db 1 YLSGADINTL 9
1 YLSGADINTL 9
Query Match 95.6%; Score 43; DB 23; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

RESULT 8
AAy09528

ID AAY09528 standard; peptide; 9 AA.
XX
AC AAY09528;
XX
DT 20-JUL-1999 (first entry)
XX
DE Carcinoembryonic antigen peptide agonist SEQ ID NO:4.
XX
KM Carcinoembryonic antigen; CEA; human; agonist; antagonist;
KM immune response; carcinoma; gastrointestinal; breast; pancreatic;
KM bladder; ovarian; lung; prostatic; T cell proliferation; cancer;
KM adoptive transfer therapy; autoimmune reaction; immunotherapy.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO9919478-A1.
XX
PD 22-APR-1999.
XX
PF 22-SEP-1998; 98WO-US19794.
XX
PR 10-OCT-1997; 97US-0061589.
XX
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
XX
PI Barzaga E, Schlom J, Zaremba S;
XX
DR WPI; 1999-326544/27.
XX
PT Peptide agonists and antagonists of carcinoembryonal antigen
XX
PS Claim 5; Page 53; 72pp; English.
XX
CC The present invention describes peptides (A) that comprise agonists (Ia)
CC or antagonists (Ib) of human carcinoembryonal antigen (CEA). (Ia) are
CC used in vaccines to kill or inhibit carcinoma cells that express CEA or
CC its epitopes, particularly for treating gastrointestinal, breast,
CC pancreatic, bladder, ovarian, lung or prostatic carcinoma. They can also
CC be used to proliferate T cells, e.g. from vaccinated subjects, for use
CC in adoptive transfer therapy. (Ib) are used to inhibit CEA-specific
CC immune responses, e.g. in vaccinated subjects, to prevent an autoimmune
CC reaction to cancer immunotherapy (i.e. to prevent attack on normal but
CC CEA-expressing cells). (Ia) are more active than native sequence (I) and
CC generate a highly specific and systemic anti-CEA response. Cytotoxic T
CC cells generated recognize both (Ia) and native CEA epitopes. The present
CC sequence represents a specifically claimed example of (Ia).
XX
SQ Sequence 9 AA;
XX
Query Match 88.9%; Score 40; DB 20; Length 9;
Best Local Similarity 88.9%; Pred. No. 9.3e+05;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 1 YLGGADINL 9
DT |||||:||||
XX 1 YLGGANINL 9
DB
RESULT 9
AAW39723 standard; peptide; 9 AA.
XX
AC AAW39723;
XX
DT 11-JUN-1998 (first entry)
XX
DE Human carcino-embryonic antigen (CEA) peptide (pos. 571-579).
XX
KM T cell epitope; immune response; human leukocyte antigen; HLA Class I;
KM vaccine; immunogenic; major histocompatibility complex; MHC; B cell;
KM disease; anti-tumour; anti-viral.
XX

OS Homo sapiens.
XX
PN WO9741440-A1.
XX
PD 06-NOV-1997.
XX
PF 28-APR-1997; 97WO-NL00229.
XX
PR 23-DEC-1996; 96EP-0203670.
PR 26-APR-1996; 96EP-0201145.
XX
PA (UYLE-) RIJKSUNIV LEIDEN.
PA (SCIS-) SCI SEED CAPITAL INVESTMENTS BV.
XX
PI Kaat WM, Melief CJM, Offringa R, Toes REM, Van Der Burg SH;
XX
DR WPI; 1997-549891/50.
XX
PT Method of selecting T cell peptide epitope(s) - by measuring the
PT stability of HLA class I-peptide complexes on intact B cells
XX
PS Example 3; Page 85; 109pp; English.
XX
CC Peptides AAW39430-W39734 are used in a novel method for the selection of
CC immunogenic T-cell peptide epitopes present in polypeptide antigens. The
CC method involves the identification of peptide sequences capable of
CC binding to an HLA (human leukocyte antigen) class I molecule and
CC measuring the binding of this epitope peptide to the HLA class I
CC peptide. The stability of binding of the peptide and MHC (major
CC histocompatibility complex) class I molecule is measured on intact human
CC B cells carrying the MHC molecule at their cell surfaces. The method can
CC be used to select peptide epitopes for generating vaccines against a
CC disease associated with the polypeptide, e.g. cancers or AIDS. The
CC peptide epitopes are especially T-cell peptide epitopes with strong
CC anti-tumour and anti-viral immune responses. Peptide AAW39723 is derived
CC from the human carcino-embryonic antigen (CEA) and has the ability to
CC bind to the human MHC Class I allele HLA-A2.1.
XX
SQ Sequence 9 AA;
XX
Query Match 84.4%; Score 38; DB 18; Length 9;
Best Local Similarity 77.8%; Pred. No. 9.3e+05;
Matches 7; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
QY 1 YLGGADINL 9
DT |||||:||||
XX 1 YLGGANINL 9
DB
RESULT 10
AAW77134 standard; peptide; 9 AA.
XX
AC AAW77134;
XX
DT 16-NOV-1998 (first entry)
XX
DE CEA synthetic peptide epitope 1.
XX
KM Tyrosinase; tyrosinase cytotoxic lymphocyte response;
KM cytotoxic T lymphocyte; cysteine-depleted; melanoma.
XX
OS Synthetic.
XX
PN WO9833810-A2.
XX
PD 06-AUG-1998.
XX
PF 29-JAN-1998; 98WO-US01592.
XX
PR 30-JAN-1997; 97US-0037781.
XX
PA (UYVI-) UNIV VIRGINIA PATENT FOUND.

XX
PI Engelhard VH, Hunt DF, Kittlesen D, Slingluf CL;
XX
DR WPI; 1998-437388/37.
XX
PT Disease specific immunogen - comprises disease specific cytotoxic T
PT lymphocyte epitope used to elicit melanoma specific CTL response
XX
PS Disclosure; Page 27; 93pp; English.
XX
CC The peptide epitope AAW77119-W77138 were created for human
CC tumour-specific cytotoxic T lymphocyte response. These peptides are
CC cysteine-depleted mutants of a native disease-specific CTL epitope. The
CC cysteine-depleted CTL epitopes elicit a stronger or more specific CTL
CC response than the native epitope. The epitopes can be used in a
CC disease-specific immunogen to protect a mammal against disease in
CC particular melanomas. The peptides may also be used to screen a sample
CC for the presence of an antigen with the same epitope, or with a different
CC cross-reactive epitope.
XX
SQ Sequence 9 AA;

Query Match 84.4%; Score 38; DB 19; Length 9;
Best Local Similarity 77.8%; Pred. No. 9.3e+05;
Matches 7; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLSGADINL 9
|||::||
Db 1 YLSGANLNL 9

RESULT 11
AAW70045
ID AAW70045 standard; peptide; 9 AA.
XX
AC AAW70045;
XX
DT 22-OCT-1998 (first entry)
XX
DE CEA derived HLA-A2.1 binding peptide 2 (residues 605-613).
XX
KW Cytotoxic T lymphocyte; CTL; major histocompatibility complex; MHC;
KW human leukocyte antigen; HLA; tumour associated antigen; cancer;
KW antigen presenting cell; APC; immunogenic peptide; immune disorder;
KW viral infection; AIDS; hepatitis; bacterial infection; malaria; CEA;
KW fungal infection; tuberculosis; melanoma; carcinoembryonic antigen.
XX
OS Synthetic.
OS Homo sapiens.
XX
XX WO9833888-A1.
PN
XX
PD 06-AUG-1998.
XX
PF 30-JAN-1998; 98WO-US01959.
XX
PR 31-JAN-1997; 97US-0036696.
XX
PA (EPIM-) EPIMMUNE INC.
XX
PI Celis E, Sette A, Sidney J, Southwood S, Tsai V;
XX
DR WPI; 1998-437445/37.
XX
PT Production of antigen-specific cytotoxic T cells - by incubating
PT immunogenic peptide(s) from antigen that binds class I major
PT histocompatibility complex molecules with pre-treated antigen
PT presenting cells
XX
XX Example 6; Page 75; 104pp; English.
PS
XX Sequences shown in AAW70044 to AAW70052 represent peptides derived from
CC carcinoembryonic antigen (CEA). The peptides can bind to a human

CC leukocyte antigen (HLA), HLA-A2.1 and are used to exemplify the method
CC of invention of producing antigen-specific cytotoxic T cells (CTLs) in
CC vitro. The method comprises contacting immunogenic peptides from an
CC antigen that binds class I major histocompatibility complex (MHC)
CC molecules with antigen presenting cells (APCs) pretreated with
CC pretreatment growth factors, and incubating the APCs with purified CD8
CC cells in the presence of at least 2 incubation growth factors, thereby
CC producing antigen-specific CTLs. A method for specifically killing
CC target cells in a human patient is also provided which comprises
CC obtaining a fluid sample containing CTLs from a patient, contacting the
CC cytotoxic T cells with APCs pretreated with pre-treatment growth
CC factors, where the APCs comprise class I MHC molecules. The pretreated
CC APCs are incubated with the cytotoxic growth factors, thereby producing
CC activated CTLs which are contacted with a carrier to form a composition.
CC The composition can then be administered to the patient. The activated
CC CTLs can be used for treating cancers, immune disorders, viral
CC infections, AIDS, hepatitis, bacterial infection, fungal infection,
CC malaria or tuberculosis.
XX
SQ Sequence 9 AA;

Query Match 84.4%; Score 38; DB 19; Length 9;
Best Local Similarity 77.8%; Pred. No. 9.3e+05;
Matches 7; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLSGADINL 9
|||::||
Db 1 YLSGANLNL 9

RESULT 12
AAY47655
ID AAY47655 standard; Peptide; 9 AA.
XX
AC AAY47655;
XX
DT 01-DEC-1999 (first entry)
XX
DE Immunogenic peptide having a human leukocyte antigen binding motif #2266.
XX
KW Human leukocyte antigen; binding; immunogenic; glycoprotein; MHC; HLA;
KW immune response; T cell activation; major histocompatibility complex;
KW cytotoxic T lymphocyte; CTL; tumour rejection; viral infection; cancer;
KW prostate cancer; hepatitis B; hepatitis C; AIDS; renal carcinoma;
KW vaccine; immunisation.
XX
OS Synthetic.
OS Homo sapiens.
XX
XX WO9945954-A1.
PN
XX
PD 16-SEP-1999.
XX
PF 13-MAR-1998; 98WO-US05039.
XX
PR 13-MAR-1998; 98WO-US05039.
XX
PA (EPIM-) EPIMMUNE INC.
XX
PI Sette A, Kubo RT, Sidney J, Celis E, Grey HM, Southwood S;
XX
DR WPI; 1999-551214/46.
XX
PT New immunogenic peptides with HLA binding motif, useful in treatment
PT and diagnosis of cancers and viral diseases -
XX
PS Claim 1; Page 118; 150pp; English.
XX
XX AAY45390 to AAY48214 represent specifically claimed immunogenic peptides
CC having a human major histocompatibility complex (MHC) Class I (also
CC known as human leukocyte antigen (HLA)) binding motif. The immunogenic
CC peptides can bind to a specific HLA allele (i.e. HLA-A subtypes
CC HLA-A2.1, A1, A3.2 or A24.1 or HLA-B or C) and induce a cytotoxic T cell

CC response against the antigen from which the peptide is derived.
CC Cytotoxic T lymphocytes (CTLs) which destroy antigen-bearing cells are
CC normally induced by an antigen in the form of a peptide fragment bound
CC to a HLA molecule, rather than the intact foreign antigen itself, and
CC are particularly important in tumour rejection and in fighting viral
CC infections. The peptides are therefore useful therapeutically to treat
CC or prevent viral infections and cancers in mammals (especially humans)
CC e.g. prostate cancer, hepatitis B and C, AIDS, and renal carcinoma.
CC They can be administered as vaccines to elicit an immune response in
CC individuals susceptible or otherwise at risk of viral infection or
CC cancer, or used to treat chronic or acute conditions. They are also
CC useful diagnostically, and can be used to induce a cytotoxic T cell
CC response, by contacting a cytotoxic T cell with the peptide e.g. to
CC produce CTLs ex vivo for infusion back into a patient. The
CC polynucleotides encoding the immunogenic peptides are also useful
CC therapeutically and for immunisation as above.

XX Sequence 9 AA;

Query Match 84.4%; Score 38; DB 20; Length 9;
Best Local Similarity 77.8%; Pred. No. 9.3e+05;
Matches 7; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

OY 1 YLGGADINL 9
||| | | | | : | |
Db 1 YLGGANLNL 9

RESULT 13
AAY09525
ID AAY09525 standard; peptide; 9 AA.

XX AAY09525;
XX
DT 20-JUL-1999 (first entry)

DE Carcinoembryonic antigen peptide agonist CAP-1.

XX
KW Carcinoembryonic antigen; CEA; human; agonist; antagonist;
KW immune response; carcinoma; gastrointestinal; breast; pancreatic;
KW bladder; ovarian; lung; prostatic; T cell proliferation; cancer;
KW adoptive transfer therapy; autoimmune reaction; immunotherapy.

XX Homo sapiens.
OS Synthetic.

XX WO919478-A1.

XX PD 22-APR-1999.

XX PF 22-SEP-1998; 98WO-US19794.

XX PR 10-OCT-1997; 97US-0061589.

XX PA (USSH) US DEPT HEALTH & HUMAN SERVICES.

XX PI Barzaga E, Schlom J, Zaremba S;

XX DR WPI; 1999-326544/27.

PT Peptide agonists and antagonists of carcinoembryonal antigen

XX Claim 1; Page 53; 72pp; English.

XX The present invention describes peptides (A) that comprise agonists (Ia)
CC or antagonists (Ib) of human carcinoembryonal antigen (CEA). (Ia) are
CC used in vaccines to kill or inhibit carcinoma cells that express CEA or
CC its epitopes, particularly for treating gastrointestinal, breast,
CC pancreatic, bladder, ovarian, lung or prostatic carcinoma. They can also
CC be used to proliferate T cells, e.g. from vaccinated subjects, for use
CC in adoptive transfer therapy. (Ib) are used to inhibit CEA-specific
CC immune responses, e.g. in vaccinated subjects, to prevent an autoimmune
CC reaction to cancer immunotherapy (i.e. to prevent attack on normal but

CC CEA-expressing cells). (Ia) are more active than native sequence (I) and
CC generate a highly specific and systemic anti-CEA response. Cytotoxic T
CC cells generated recognize both (Ia) and native CEA epitopes. The present
CC sequence represents a specifically claimed example of (Ia).

XX Sequence 9 AA;

Query Match 84.4%; Score 38; DB 20; Length 9;
Best Local Similarity 77.8%; Pred. No. 9.3e+05;
Matches 7; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

OY 1 YLGGADINL 9
||| | | | | : | |
Db 1 YLGGANLNL 9

RESULT 14
AAB13749
ID AAB13749 standard; peptide; 9 AA.

XX AAB13749;

XX DT 02-FEB-2001 (first entry)

DE Peptide fragment # 1 from human CEA.

XX Human; T-cell; immune response; antigen; epitope; B7 family molecule;
KW Leukocyte function-associated antigen-3; LFA-3;
KW Intercellular adhesion molecule-1; ICAM-1; vaccine; immunotherapy;
KW colon polyp; Crohn's disease; ulcerative colitis; breast lesion;
KW tumour; CEA.

XX Homo sapiens.

XX WO20034494-A1.

XX PD 15-JUN-2000.

XX PF 12-NOV-1999; 99WO-US26866.

XX PR 09-DEC-1998; 98US-0111582.

XX PA (USSH) US DEPT HEALTH & HUMAN SERVICES.

XX PI Schlom J, Hodge J, Panicali D;

XX DR WPI; 2000-431307/37.

XX Novel recombinant vector useful as immunogens and vaccines for
PT stimulating and enhancing immunological responses to target cells and
PT antigens expresses multiple co-stimulatory molecules such as B7-1,
PT LFA-3, ICAM-1 -

XX Claim 18; Page 35; 188pp; English.

XX Costimulatory molecules have important roles in T-cell activation and
CC therefore the immune response. The present invention relates to
CC recombinant vectors which comprise of foreign nucleic acid sequences
CC encoding at least three costimulatory molecules: a B7 family molecule,
CC leukocyte function-associated antigen-3 (LFA-3, human CD58) and
CC intercellular adhesion molecule-1 (ICAM-1, CD54) and optionally a foreign
CC gene encoding a target antigen or immunological epitope. The present
CC sequence is one such target antigen used in the present invention. The
CC present sequence is a tumour-associated antigen. The vector of the
CC present invention would be useful for providing an enhanced immune
CC response to the present target antigen. The vector of the present
CC invention may therefore be useful in immunotherapy for treating or
CC preventing diseases caused by viruses, bacteria, protozoans, parasites,
CC premalignant cells and tumour cells. The recombinant vector can be used
CC to treat or prevent preneoplastic or hyperplastic states such as colon
CC polyps, Crohn's disease, ulcerative colitis and breast lesions.

Sequence 9 AA;

Query Match 84.4%; Score 38; DB 21; Length 9;
Best Local Similarity 77.8%; Pred. No. 9.3e+05;
Matches 7; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLSGADINL 9
1 YLSGANLNL 9

QY 1 YLSGADINL 9
1 YLSGANLNL 9

Search completed: January 12, 2004, 14:28:23
Job time : 32.25 secs

RESULT 15

AAB82776 standard; Protein; 9 AA.

AAB82776;

29-OCT-2001 (first entry)

Carcinoembryonic antigen peptide.

Telomerase reverse transcriptase; hTERT; human;
cytotoxic T lymphocyte; major histocompatibility complex; cancer;
tumour; human leucocyte antigen; HLA-A2.1; vaccine;
carcinoembryonic antigen.

Homo sapiens.

WO200160391-A1.

23-AUG-2001.

15-FEB-2001; 2001WO-US05143.

15-FEB-2000; 2000US-0182685.
15-FEB-2001; 2001US-0182685.

(REGC) UNIV CALIFORNIA.

Zanetti M;

WPI; 2001-536552/59.

Vaccine for initiating and enhancing a cytotoxic T lymphocyte response,
for treating cancers or tumours or for inducing immune response against
tumours, comprises a telomerase reverse transcriptase peptide

Example 1; Page 12; 52pp; English.

The present sequence is that of a carcinoembryonic antigen peptide
comprising amino acid residues 571-579. The peptide was used as a
reference peptide in comparison with human telomerase reverse
transcriptase (hTERT) HLA-A2.1+ restricted peptide p540 (see
AAB82772) in a HLA-A2.1 binding/stabilisation assay. The induction
of CTL responses in vitro and in vivo, and the susceptibility to
lysis of tumour cells of various origins by hTERT CTL suggest that
hTERT could serve as a universal cancer vaccine for humans. A
claimed universal vaccine for treating tumours of any origin
comprises at least 1 hTERT peptide. The peptide is 7-15 amino
acid residues in length and may be modified to enhance binding to
the major histocompatibility complex. Also claimed is a method for
inducing and enhancing a CTL response against cancer cells, involving
harvesting blood leucocytes, pulsing with hTERT, and contacting
cancer cells with the pulsed leucocytes. A method for targeting
CTL to tumour cells is also claimed, and involves administering a
hTERT peptide to a mammal, especially a cancer patient.

Sequence 9 AA;

Query Match 84.4%; Score 38; DB 22; Length 9;
Best Local Similarity 77.8%; Pred. No. 9.3e+05;
Matches 7; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

DT 01-NOV-1996 (TReMBLrel. 01, Last sequence update)
DT 01-DEC-2001 (TReMBLrel. 19, Last annotation update)
DE C-terminus of the viral replicase (Fragment).
OS Cherry leaf roll virus.
OC Viruses; ssRNA positive-strand viruses, no DNA stage; Comoviridae;
OC Nepovirus.
OX NCBI_TaxID=12615;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=Walnut;
RA Borja M.;
RL Thesis (1992), Biologia Molecular y Virologia Vegetal, CIT-INIA.
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN=Walnut;
RX MEDLINE=96124520; PubMed=8560786;
RA Borja M., Sanchez F., Rowhani A., Bruening G., Ponz F.;
RT "Long, nearly identical untranslated sequences at the 3' terminal
RT regions of the genomic RNAs of cherry leafroll virus (walnut
RT strain).";
RL Virus Genes 10:245-252 (1995).
DR EMBL; Z34265; CAA84019.1; -.
FT NON_TER 1
SQ SEQUENCE 7 AA; 800 MW; 7417672EBDC6D740 CRC64;

Query Match 35.4%; Score 17; DB 12; Length 7;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 5 ACL 7
Db 3 ACL 5

RESULT 3
Q9PS69 PRELIMINARY; PRT; 8 AA.
ID Q9PS69
AC Q9PS69;
DT 01-MAY-2000 (TReMBLrel. 13, Created)
DT 01-MAY-2000 (TReMBLrel. 13, Last sequence update)
DT 01-JUN-2002 (TReMBLrel. 21, Last annotation update)
DE Low density lipoprotein receptor-related protein (Fragment).
OS Gallus gallus (Chicken).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC Gallus.
OX NCBI_TaxID=9031;
RN [1]
RP SEQUENCE.
RX MEDLINE=92011685; PubMed=1918027;
RA Stifani S., Barber D.L., Aebersold R., Steyrer E., Shen X., Nimpf J.,
RA Schneider W.J.;
RT "The laying hen expresses two different low density lipoprotein
RT receptor-related proteins.";
RL J. Biol. Chem. 266:19079-19087(1991).
FT NON_TER 1
FT NON_TER 8
SQ SEQUENCE 8 AA; 846 MW; C007272DD865BAAA CRC64;

Query Match 35.4%; Score 17; DB 13; Length 8;
Best Local Similarity 80.0%; Pred. No. 8.3e+05;
Matches 4; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 3 SGACL 7
Db 3 SGALL 7

RESULT 4
P87225 PRELIMINARY; PRT; 8 AA.
ID P87225
AC P87225;
DT 01-JUL-1997 (TReMBLrel. 04, Created)

DT 01-NOV-1999 (TReMBLrel. 12, Last sequence update)
DT 01-OCT-2002 (TReMBLrel. 22, Last annotation update)
DE GIN11 protein (Fragment).
OS Saccharomyces cerevisiae (Baker's yeast).
OC Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
OC Saccharomycetales; Saccharomycetaceae; Saccharomyces.
OX NCBI_TaxID=4932;
RN [1]
RP SEQUENCE FROM N.A.
RA wedler H., Wedler E., Scharfe M., Warbutt R.;
RL Submitted (MAY-1996) to the EMBL/GenBank/DBJ databases.
RN [2]
RP SEQUENCE FROM N.A.
RA MIPS;
RL Submitted (MAY-1996) to the EMBL/GenBank/DBJ databases.
DR EMBL; Z73169; CAA97518.2; -.
FT NON_TER 1
SQ SEQUENCE 8 AA; 1019 MW; 4E21A9C449D5B73B CRC64;

Query Match 31.2%; Score 15; DB 3; Length 8;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 YLS 3
Db 1 YLS 3

RESULT 5
Q9TRY3 PRELIMINARY; PRT; 8 AA.
ID Q9TRY3
AC Q9TRY3;
DT 01-MAY-2000 (TReMBLrel. 13, Created)
DT 01-MAY-2000 (TReMBLrel. 13, Last sequence update)
DT 01-JUN-2002 (TReMBLrel. 21, Last annotation update)
DE Insulin-like growth factor-binding protein-6, IGFBP-6 (Fragment).
OS Sus sp.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
OX NCBI_TaxID=9826;
RN [1]
RP SEQUENCE.
RX MEDLINE=92049376; PubMed=1719383;
RA Shimasaki S., Gao L., Shimonaka M., Ling N.;
RT "Isolation and molecular cloning of insulin-like growth factor-binding
RT protein-6";
RL Mol. Endocrinol. 5:938-948(1991).
FT NON_TER 1
FT NON_TER 8
SQ SEQUENCE 8 AA; 850 MW; 9FB2CEA37EA7687D CRC64;

Query Match 31.2%; Score 15; DB 6; Length 8;
Best Local Similarity 50.0%; Pred. No. 8.3e+05;
Matches 2; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 3 SGAC 6
Db 1 AGPC 4

RESULT 6
O42564 PRELIMINARY; PRT; 7 AA.
ID O42564
AC O42564;
DT 01-JAN-1998 (TReMBLrel. 05, Created)
DT 01-JAN-1998 (TReMBLrel. 05, Last sequence update)
DT 01-NOV-1998 (TReMBLrel. 08, Last annotation update)
DE Truncated voltage-gated sodium channel alpha subunit (Fragment).
GN SCN8A.
OS Fugu rubripes (Japanese pufferfish) (Takifugu rubripes).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;

OC Tetradontoidea; Tetradontidae; Takifugu.
OX NCBI_TaxID=31033;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=97442476; PubMed=9295353;
RA Plummer N.W., McBurney M.W., Weisler M.H.;
RT "Alternative splicing of the sodium channel SCN8A predicts a truncated
two-domain protein in fetal brain and non-neuronal cells.";
RL J. Biol. Chem. 272:24008-24015(1997).
DR EMBL; U97673; AAB80916.1; -.
KW Ionic channel.
FT NON_TER 1 1
SQ SEQUENCE 7 AA; 730 MW; 75B72EA2C73772A0 CRC64;

Query Match 29.2%; Score 14; DB 13; Length 7;
Best Local Similarity 66.7%; Pred. No. 8.3e+05;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 6 CLN 8
Db 5 CUS 7

RESULT 7
Q9X3K1 PRELIMINARY; PRT; 8 AA.
ID Q9X3K1
AC Q9X3K1;
DT 01-NOV-1999 (Tremblrel. 12, Created)
DT 01-NOV-1999 (Tremblrel. 12, Last sequence update)
DT 01-NOV-1999 (Tremblrel. 12, Last annotation update)
DE Cytochrome b (Fragment).
GN PETB.
OS Prochlorococcus sp.
OC Bacteria; Cyanobacteria; Prochlorophytes; Prochlorococcaceae;
OC Prochlorococcus.
OX NCBI_TaxID=1220;
RN [1]
RP SEQUENCE FROM N.A.
RA Urbach E., Chisholm S.W.;
RT "Genetic diversity in Prochlorococcus populations flow cytometrically
sorted from the Sargasso Sea and Gulf Stream.";
RL limnol. Oceanog. 43:1615-1630(1998).
DR EMBL; AF070193; AAD23233.1; -.
FT NON_TER 1 1
SQ SEQUENCE 8 AA; 799 MW; 10376865B72866D3 CRC64;

Query Match 29.2%; Score 14; DB 2; Length 8;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 2 LSG 4
Db 4 LSG 6

RESULT 8
P82079 PRELIMINARY; PRT; 8 AA.
ID P82079
AC P82079;
DT 01-MAY-2000 (Tremblrel. 13, Created)
DT 01-MAY-2000 (Tremblrel. 13, Last sequence update)
DT 01-MAY-2000 (Tremblrel. 13, Last annotation update)
DE DYNASTIN 1.
OS Limnodynastes interioris (Giant banjo frog).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Neobatrachia; Bufonidae; Myobatrachidae;
OC Limnodynastinae; Limnodynastes.
OX NCBI_TaxID=30362;
RN [1]
RP SEQUENCE, AND MASS SPECTROMETRY.
RC TISSUE=TIBIAL GLAND;
RA Raftery M.J., Bradford A.M., Bowie J.H., Wallace J.C., Tyler M.J.;
RT "Peptides from Australian frogs. The structure of the dynastins from

RT the banjo frogs Limnodynastes interioris, Limnodynastes dumerilli and
RT Limnodynastes terraereginae.";
RL Aust. J. Chem. 46:833-842(1993).
CC -1- MASS SPECTROMETRY: MW=729; METHOD=FAB.
KW Amphibian skin.
SQ SEQUENCE 8 AA; 729 MW; 7C28772865B72728 CRC64;

Query Match 29.2%; Score 14; DB 13; Length 8;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 2 LSG 4
Db 3 LSG 5

RESULT 9
Q9TRS0 PRELIMINARY; PRT; 9 AA.
ID Q9TRS0
AC Q9TRS0;
DT 01-MAY-2000 (Tremblrel. 13, Created)
DT 01-MAY-2000 (Tremblrel. 13, Last sequence update)
DT 01-JUN-2002 (Tremblrel. 21, Last annotation update)
DE Calcyclin-associated protein, CAP50=Ca2+/phospholipid-binding protein
L-7 fragment (Fragment).
DE Oryctolagus cuniculus (Rabbit).
OS Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Euthera; Lagomorpha; Leporidae; Oryctolagus.
OX NCBI_TaxID=9986;
RN [1]
RP SEQUENCE.
RX MEDLINE=92250478; PubMed=1533622;
RA Tokumitsu H., Mizutani A., Minami H., Kobayashi R., Hidaka H.;
RT "A calcyclin-associated protein is a newly identified member of the
Ca2+/phospholipid-binding proteins, annexin family.";
RL J. Biol. Chem. 267:8919-8924(1992).
FT NON_TER 1 1
FT NON_TER 9 9
SQ SEQUENCE 9 AA; 1010 MW; 64E419C44865B72B CRC64;

Query Match 29.2%; Score 14; DB 6; Length 9;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 2 LSG 4
Db 3 LSG 5

RESULT 10
Q9FSZ2 PRELIMINARY; PRT; 9 AA.
ID Q9FSZ2
AC Q9FSZ2;
DT 01-MAR-2001 (Tremblrel. 16, Created)
DT 01-MAR-2001 (Tremblrel. 16, Last sequence update)
DT 01-MAR-2001 (Tremblrel. 16, Last annotation update)
DE Hypothetical 1.0 kDa protein (Fragment).
OS Cicer arietinum (Chickpea) (Garbanzo).
OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae;
OC eurosids I; Fabales; Fabaceae; Papilionoideae; Ciceraceae; Cicer.
OX NCBI_TaxID=3827;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=cv. Castellana; TISSUE=Etiolated epicotyl;
RA Dopico B., Jimenez T., Labrador E.;
RT "cDNA clones expressed in etiolated Cicer arietinum epicotyls.";
RL Submitted (SEP-2000) to the EMBL/GenBank/DBJ databases.
DR EMBL; AJ299069; CAC10216.1; -.
KW Hypothetical protein.
FT NON_TER 1 1
SQ SEQUENCE 9 AA; 990 MW; 9441BDDAA72722EBE CRC64;

Query Match 29.2%; Score 14; DB 10; Length 9;
Best Local Similarity 60.0%; Pred. No. 8.3e+05;
Matches 3; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 2 LSGAC 6
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Db 4 LLDAC 8

RESULT 11

O35953 PRELIMINARY; PRT; 9 AA.
AC O35953;
DT 01-JAN-1998 (TREMBlrel. 05, Created)
DT 01-JAN-1998 (TREMBlrel. 05, Last sequence update)
DT 01-DEC-2001 (TREMBlrel. 19, Last annotation update)
DE Truncated voltage-gated sodium channel alpha subunit (Fragment).
GN SCN8A.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=R11;
RX MEDLINE=97442476; PubMed=9295353;
RA Plummer N.W., McBurney M.W., Weisler M.H.;
RT "Alternative splicing of the sodium channel SCN8A predicts a truncated
RT two-domain protein in fetal brain and non-neuronal cells.";
RL J. Biol. Chem. 272:24008-24015(1997).
DR EMBL; U97672; AAB80914.1; -.
DR MGD; MGI:103169; Scn8a.
KM Ionic channel.
FT NON TER 1
SQ SEQUENCE 9 AA; 898 MW; 22D92865B735B737 CRC64;

Query Match 29.2%; Score 14; DB 11; Length 9;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 2 LSG 4
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Db 5 LSG 7

RESULT 12

O8KMS3 PRELIMINARY; PRT; 7 AA.
AC O8KMS3;
DT 01-OCT-2002 (TREMBlrel. 22, Created)
DT 01-OCT-2002 (TREMBlrel. 22, Last sequence update)
DT 01-OCT-2002 (TREMBlrel. 22, Last annotation update)
DE Putative Merr2 protein.
GN MERR2.
OS Klebsiella sp. LS13-39.
OC Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC Enterobacteriaceae; Klebsiella.
OX NCBI_TaxID=143776;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=LS13-39;
RX MEDLINE=21604134; PubMed=11763242;
RA Mindlin S.Z., Kholodii G.Y., Gorlenko Z.M., Minakhina S.V.,
RA Minakhin L.S., Kalyaeva E.S., Kopteva A.V., Petrova M.A.,
RA Yurieva O.V., Nikiforov V.G.;
RT "Mercury resistance transposons of Gram-negative environmental
RT bacteria and their classification.";
RL Res. Microbiol. 152:811-822(2001).
DR EMBL; AJ302776; CAC82975.1; -.
SQ SEQUENCE 7 AA; 608 MW; 6DC1B5BDD87DD6F0 CRC64;

Query Match 27.1%; Score 13; DB 2; Length 7;
Best Local Similarity 50.0%; Pred. No. 8.3e+05;

Matches 2; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 2 LSGA 5
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Db 1 MAGA 4

RESULT 13

O9Y4X6 PRELIMINARY; PRT; 8 AA.
AC O9Y4X6;
DT 01-NOV-1999 (TREMBlrel. 12, Created)
DT 01-NOV-1999 (TREMBlrel. 12, Last sequence update)
DT 01-DEC-2001 (TREMBlrel. 19, Last annotation update)
DE Nuclear LIM Interactor (Fragment).
GN NLI.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominiidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=20108806; PubMed=10640831;
RA Drechsler M., Schumacher V., Friedrich S., Wildhardt G., Giesler S.,
RA Schroth A., Bodem J., Royer-Pokora B.;
RT "Genomic structure, alternative transcripts and chromosome location of
RT the human LIM domain binding protein gene LDB1.";
RL Cytogenet. Cell Genet. 87:119-124(1999).
DR EMBL; AJ243097; CAB45408.1; -.
FT NON TER 8
SQ SEQUENCE 8 AA; 767 MW; EE6EBDDEB862D5B6 CRC64;

Query Match 27.1%; Score 13; DB 4; Length 8;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;
Matches 2; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 5 AC 6
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Db 6 AC 7

RESULT 14

O02831 PRELIMINARY; PRT; 8 AA.
AC O02831;
DT 01-JUL-1997 (TREMBlrel. 04, Created)
DT 01-JUL-1997 (TREMBlrel. 04, Last sequence update)
DT 01-DEC-2001 (TREMBlrel. 19, Last annotation update)
DE Pro alpha 1 type III collagen protein (Fragment).
OS Oryctolagus cuniculus (Rabbit).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
OX NCBI_TaxID=9986;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=96377339; PubMed=8783186;
RA Metasaranta M., Kujala U.M., Pelliniemi L., Osterman H., Aho H.,
RA Vuorio E.;
RT "Evidence for insufficient chondrocytic differentiation during repair
RT of full-thickness defects of articular cartilage.";
RL Matrix Biol. 15:39-47(1996).
DR EMBL; S83371; AAD14433.1; -.
KW Collagen.
FT NON TER 1
SQ SEQUENCE 8 AA; 1028 MW; B859C7272EA77371 CRC64;

Query Match 27.1%; Score 13; DB 6; Length 8;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;
Matches 2; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 6 CL 7
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Db 4 CL 5

RESULT 15

Q47063 PRELIMINARY; PRT; 9 AA.
ID Q47063
AC Q47063;
DT 01-NOV-1996 (TReMBLrel. 01, Created)
DT 01-NOV-1996 (TReMBLrel. 01, last sequence update)
DT 01-NOV-1998 (TReMBLrel. 08, last annotation update)
DE URF 1.
OS Escherichia coli.
OC Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC Enterobacteriaceae; Escherichia.
OX NCBI_TaxID=562;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=W;
RX MEDLINE=85215599; PubMed=2987841;
RA Takagi J.S., Ida N., Tokushige M., Sakamoto H., Shimura Y.;
RT "Cloning and nucleotide sequence of the aspartase gene of Escherichia
RT coli W.";
RL Nucleic Acids Res. 13:2063-2074(1985).
DR EMBL; X02307; CAA26175.1; -.
SQ SEQUENCE 9 AA; 1061 MW; 9DE21EA5B9C72EA1 CRC64;

Query Match 27.1%; Score 13; DB 2; Length 9;
Best Local Similarity 100.0%; Pred. No. 8.3e+05;
Matches 2; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 6 CL 7
Db 3 CL 4

Search completed: January 12, 2004, 14:31:02
Job time : 26.75 secs

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